

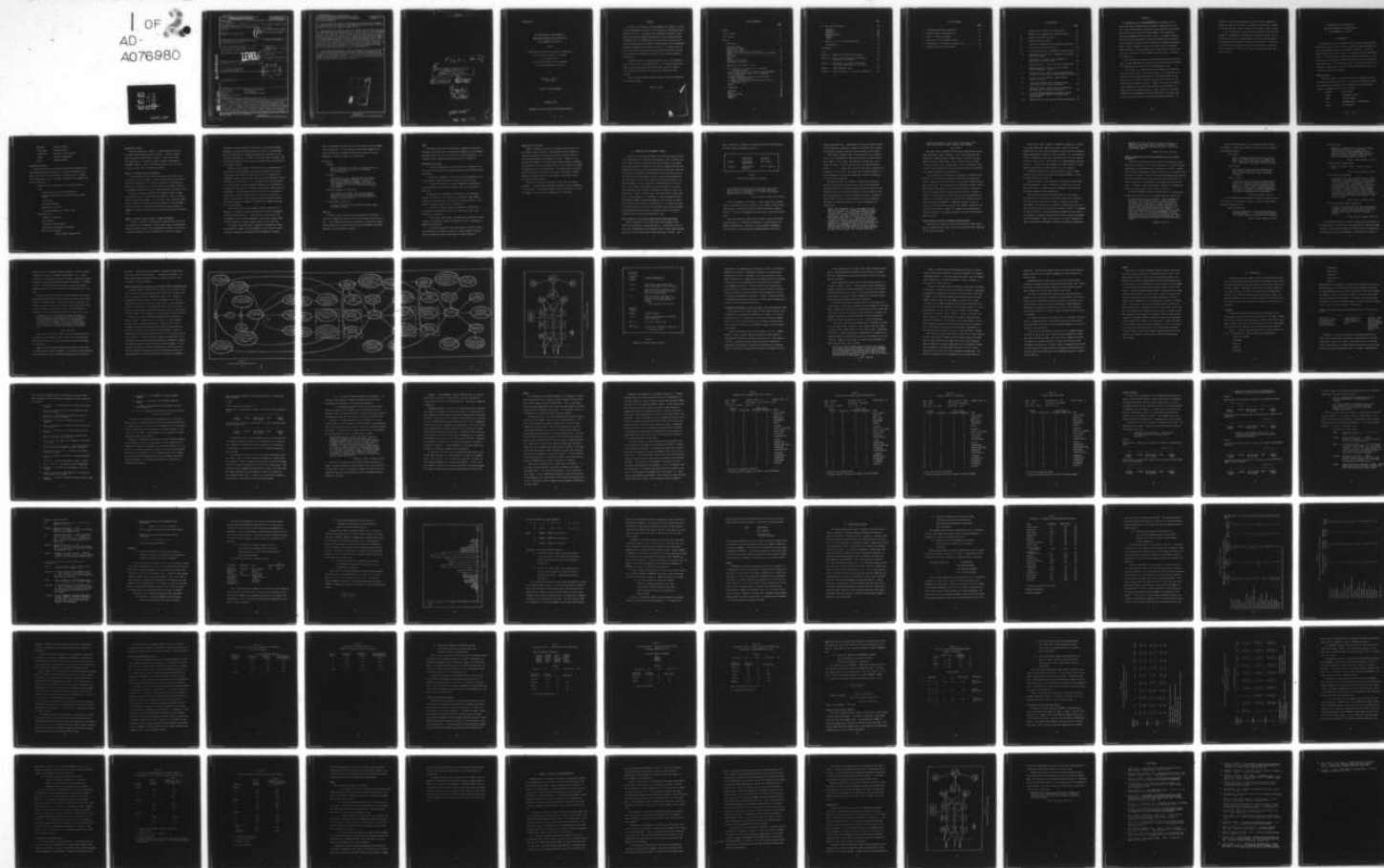
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to which each facet was associated with job performance organization membership.

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Several facets were generally associated with performance alone and about the same number were associated with both membership and performance. Only compensation (pay) was associated with membership alone.

Clear evidence of a changing relationship between job performance satisfaction and overall satisfaction was found. For officers with less than seven years of service there was no relationship between the two variables, but for officers with more than seven years of service, the relationship was moderate to strong. Evidence of a similar but opposite effect between satisfaction with both membership and performance outcomes and overall satisfaction was also found. A positive, consistent relationship existed between the two variables prior to the seven year point; beyond seven years the consistency decreased considerably. No support was found for the hypotheses that the correlation between performance satisfaction and overall satisfaction is significantly stronger for officers working at higher echelons than for those at lower echelons.

It was concluded that using a 20 facet questionnaire did not uncover support for the hypothesis that membership satisfaction exists, but evidence for the presence of job performance satisfaction and satisfaction associated with both membership and performance was found. The relations of these two variables with overall job satisfaction is different for two categories of officers--less than seven and greater than seven years of service.

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ORGANIZATION MEMBERSHIP SATISFACTION AND
JOB PERFORMANCE SATISFACTION:
AN EXAMINATION OF TWO CONSTRUCTS •

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Major, USAF

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AN INVESTIGATION OF TWO CONSTRUCTS:
ORGANIZATION MEMBERSHIP SATISFACTION AND
JOB PERFORMANCE SATISFACTION

THESIS

Presented to the Faculty of the School of Engineering
of the Air Force Institute of Technology
Air University (ATC)
in Partial Fulfillment of the Requirements
for the Degree of Master of Science

by

Wesley B. Dixon, B.S.
Major, USAF

Graduate Systems Management

September 1979

Approved for public release; distribution unlimited.

Preface

This thesis fulfills part of the requirement for a master of science in Systems Management from the Air Force Institute of Technology, Wright-Patterson AFB, Ohio. The research was undertaken to determine if satisfaction with work environment characteristics (facets) associated with performance alone (job performance satisfaction) and satisfaction with facets associated with other aspects of being a member of the organization (organization membership satisfaction) do exist. A secondary objective was to explore the relationship of these two satisfactions with overall job satisfaction at different career points and at different organizational levels.

I appreciate the wise counsel and guidance of Dr. (Lt Col) Edward J. Dunne, thesis advisor, the suggestions of Dr. (Lt Col) Saul Young, thesis reader, and the expert typing and editing by Ms. Elaine M. Tabbert. Their efforts were essential to the successful completion of this research.

Above all my wife, Martha, deserves heartfelt thanks and credit for her support throughout.

Wesley B. Dixon

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Abstract

The primary objective ^{of this thesis} of the research was to determine if satisfaction with work environment facets (outcomes) associated with performance alone (job performance satisfaction) and satisfaction with outcomes associated with other aspects of being a member of the organization (organization membership satisfaction) do exist. A secondary objective was to explore the relationship of these two satisfactions with overall job satisfaction at different career points and at different organization levels. Officer students in two Air Force schools (N = 267) recorded satisfaction with 20 work environment facets and the degree to which each facet was associated with job performance and other aspects of organization membership.

Several facets were generally associated with performance alone and about the same number were associated with both membership and performance. Only compensation (pay) was associated with membership alone.

Clear evidence of a changing relationship between job performance satisfaction and overall satisfaction was found. For officers with less than seven years of service there was no relationship between the two variables, but for officers with more than seven years of service, the relationship was moderate to strong. Evidence of a similar but opposite effect between satisfaction with both membership and performance outcomes and overall satisfaction was also found. A positive, consistent relationship existed between the two variables prior to the seven year point; beyond seven years the consistency decreased considerably. No

support was found for the hypotheses that the correlation between performance satisfaction and overall satisfaction is significantly stronger for officers working at higher echelons than for those at lower echelons.

It was concluded that using a 20 facet questionnaire did not uncover support for the hypothesis that membership satisfaction exists, but evidence for the presence of job performance satisfaction and satisfaction associated with both membership and performance was found. The relationship of these two variables with overall job satisfaction is different for two categories of officers--less than seven and greater than seven years of service.

AN EXAMINATION OF TWO CONSTRUCTS:
ORGANIZATION MEMBERSHIP SATISFACTION AND
JOB PERFORMANCE SATISFACTION

I. Introduction

Research focusing on the behavior of people in organizations usually approaches the subject from a specific perspective--motivation model, job design, organization structure, organization climate, etc., with each approach providing valuable insight. As knowledge of the work environment grows, it is recognized more clearly that organizational behavior is complex--not easily predicted by simplistic rules for action or philosophies about human nature. The following four basic starting points exhibit the diversity of perspectives prevalent in current theoretical and empirical studies of organizational behavior.

Motivation Models

Theoretical models of motivation are based on fundamental beliefs about why people behave as they do. This century has witnessed a parade of assorted motivation models used in explaining and predicting the behavior of people as reflected in this sample:

Alderfer	need oriented
Argyris	need/growth oriented
Brown	rational/economic
Hill	phenomenological (unpredictable)
Maslow	need hierarchy

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McGregor	Theory X, Theory Y
Porter-Lawler	Expectancy Theory
Creationists	spiritual, social, physical
Skinner	behavior reinforcement
Vroom	Expectancy Theory

Organization Structure

Examining the effects of organization structure on people has provided some understanding of behavior. A variety of structures exist: large, small; tall, flat; many barriers, few barriers; etc. (Schein, 1971; Schneider, May 1974:2). Two explicit definitions of organizations have been developed:

Organizations are characterized as low or high on these scales:

Designing specialties and fractioning work

Designing production rates and controlling the speed of work

Giving orders

Evaluating performance

Rewarding and punishing

Perpetuating membership (Argyris, 1973)

Organizations are:

Composed of individuals

Goal-oriented

Functionally differentiated

Consciously and rationally coordinated

More or less continuous

(Porter, Lawler, Hackman, 1975)

Organization Climate

Perceived organization climate is a concept separate from both individual behavior and organization structure. Different climate types encourage different behavior patterns: group participation, individual activity, conformance to group standards, conformance to management standards, creative thinking and acting, low-risk activity, high-risk activity, etc. (Schneider, May 1974:8).

Dynamics of Personality and Job Experience

A fourth approach considers the longitudinal interactions of the person and his work environment. People are changed by work experiences, shaped by the complexity of the tasks, the authority, and autonomy for which they are responsible. In short, there exists a dynamic relationship between personality and specific work environments (Brousseau, 1977:1).

One group of theorists questions the fundamental images of human nature that are explicitly and implicitly employed in nearly all recent industrial psychology writings. By this account, most researchers employ a basic concept of man that stresses the importance of self and demeans the role of others. Dignity and individual worth become distant and somewhat irrelevant to the study of work environments (Blackler and Brown, 1978).

Needed: A Holistic View of People in the Work Environment

A study of any aspect of organizational behavior would profit from the inclusion of the researcher's internal model of man--a paradigm that enables the reader to more clearly understand the context of the analysis. A second cornerstone of such a study would be a holistic or systems

perspective concerning people in the totality of the work environment. Boundaries of the work situation become less clear--or, stated another way, the indistinctness of boundaries becomes more significant to the systems oriented analyst. In order to perceive the work environment from the systems perspective, this study uses the Daspit model of work motivation (Daspit, 1978:92).

Besides accusing industrial psychologists of not understanding the implications of the paradigms of man they use, Blackler, et al, also contend that recent theorists either forget or do not comprehend the fundamental reasons for which people form and join organizations (Blackler and Brown, 1978; Nord, 1977). It is conceivable that, after performing at a level necessary to obtain permanent membership in an organization, a worker may decide that he is content to maintain that minimum level of performance. This hypothetical situation could occur at any organizational level, within any professional or social group, or even in a family. Other people in those groups may perform at levels far above the minimum necessary, presumably to experience the rewards associated with that performance.

Daniel Katz discusses system rewards--benefits available to all members of a subsystem--separate from rewards for specific performance (Steers and Porter, 1975:261). Ralph Katz calls for a study of the environments in which jobs are embedded in order to more clearly understand the behavior of people in organizations (R. Katz, 1978:218).

This study follows Ralph Katz's suggestion by attempting to aggregate experiences common in work environments into two distinct classes: experiences (outcomes) associated with the performance of assigned

duties, and outcomes associated with all other aspects of being a member of the organization. The satisfactions expressed with membership outcomes and performance outcomes are examined with respect to various demographic variables and overall job satisfaction.

Definitions

Outcomes:

Natural consequences of activity. Outcomes may be positive or negative with respect to the individual's perceived well being.

Performance:

Goal oriented activity. Performance directed toward maintaining organization membership results in or is associated with membership outcomes. Performance directed toward achieving organizational goals or specific rewards results in or is associated with performance outcomes.

Organization Membership Satisfaction:

The collection of attitudes that individuals maintain toward membership outcomes--the common experiences, benefits, and restrictions resulting from simply being a member of the organization.

Job Performance Satisfaction:

The collection of attitudes that workers maintain toward performance outcomes.

Objectives

The overall objective was to investigate whether the constructs organization membership satisfaction and job performance satisfaction do exist. The secondary objective was to examine the relationships between these two measures of satisfaction with the work environment and various demographic and organizational variables.

Sample

The Minnesota Satisfaction Questionnaire, augmented with questions pertaining to the association of outcomes with membership and performance, was administered to 267 Air Force officers in training situations. The instrument and the sample population are discussed in Chapter III.

Hypotheses to be Tested

1. Organization membership satisfaction and job performance satisfaction are separate and distinguishable phenomena that characterize work environments.

2. Organization membership satisfaction and job performance satisfaction are two primary determinants of overall job satisfaction.

3. There exists some ratio or average membership satisfaction to average performance satisfaction for which overall job satisfaction is maximized.

The remaining four hypotheses are formulated on the theoretical grounds of Brousseau, et al, that the job constitutes a major dynamic influence on the personality of the worker (Brousseau, 1977:22). This theory is addressed in more detail in Chapter II.

4. During early stages, organization membership satisfaction is more strongly associated with overall job satisfaction than is job performance satisfaction.

5. During later career stages, job performance satisfaction is more strongly associated with overall job satisfaction than is organization membership satisfaction.

6. During the competitive career (while workers perceive a reasonable opportunity for promotion), workers at higher echelons value performance outcomes more highly than workers at lower echelons do.

Organization of the Study

Chapter II reviews the variety of paradigms used by theorists to build their schools of thought. An understanding of these models is significant because of the conclusions one must logically come to in accepting the paradigm of one theorist or another. Chapter II also discusses the dynamics of the relationship between the work environment and the worker--the types of behavior that exist in the work environment and possible results of those behaviors. The Daspi model is explained and then modified to illustrate the conceptual relationships between membership outcomes/satisfaction, performance outcomes/satisfaction, and overall job satisfaction.

Chapter III discusses the procedures used to test the research hypotheses. The questionnaire and sample population are also addressed in this section. The remaining chapters contain the analysis of results and summary, conclusions, and recommendations in that order.

II. MEMBERSHIP AND PERFORMANCE OUTCOMES

Experiences in the work environment are usually associated with activity. Some activities or behaviors are required in order to perform specific duties, some are required by simply being a member of the organization, and some are not required at all but are allowed/tolerated by the organization so long as they do not interfere with organization objectives. This chapter first addresses different ways of associating work environment activities with performance of duties and organization membership. The significance of one's view of human nature and implications for the work environment in terms of membership and performance are discussed next. It is possible that emphasis on individual rewards in the workplace has obscured the influence of membership outcomes on overall job satisfaction. Dasgupta's proposed model of work motivation is used to provide a systems perspective of individuals in work environments and the relationships between organization membership satisfaction, job performance satisfaction, and overall job satisfaction. The chapter concludes by presenting results from studies of different career groups and examining how membership and performance satisfactions might be expected to change with years service and organizational level.

Not All Behavior is Structured Toward Achieving Organization Goals

When an individual joins an organization, two phenomena characterize the relationship; exchange and conflict. Organizations seek certain inputs from employees while employees expect to meet certain personal goals as a result of these inputs (Steers and Porter, 1975:256). One

way of viewing this interaction and exchange process has been developed by Porter, Lawler, and Hackman (Figure 1).

	<u>Organization</u>	<u>Individual</u>
Demands	communicated expectations	needs & goals
Resources	organizational resources	skills & energies

Figure 1

Individual-Organization Interactions

The communicated expectations of organizations place requirements on the skills and energies of individuals while the needs and goals of individuals call on certain organizational resources for their fulfillment.

(Porter, Lawler, Hackman, 1975:108-109)

Conflict accompanies this exchange. Argyris argues that as people mature on selected personality dimensions, their behaviors conflict more and more with the behaviors required by formal organizations (Argyris, 1973:142). Conflict and compromise are both a part of every work environment.

Daniel Katz identifies three types of behavior required for organizational success: (1) entering and remaining in an organization; (2) meeting responsibilities (carrying out role assignments) dependably; and (3) acting in an innovative and spontaneous manner in achieving

organizational objectives. Subcategories of the third behavior pattern include cooperation, protection, constructive thinking, self training, and generating favorable attitudes (Steers and Porter, 1975:259-261).

Other types of behaviors might include that which has a negative effect on the achievements of organizational goals, and behavior which has no effect at all on goals. Much behavior of these types occurs within the sphere of activity that Fred Katz has termed autonomy by default. "... in a sphere where no clear rules exist, autonomy exists by default" (F. Katz, 206). Katz argues that autonomy by default is a normal phenomenon of the work environment and should be considered so by theorists and researchers.

Autonomy by default can encompass a large portion of behavior exhibited at work and may influence one's overall job satisfaction. Directed autonomy (not autonomy by default) occurs with respect to performance of duties such as when an employee is told to simply get the job done without being given close guidelines to follow. Autonomy by default usually occurs in areas of behavior not directed toward the performance of organizational goals as in Roy's documentation of "Banana time":

Banana time followed peach time by approximately an hour. Sammy again provided the refreshments, namely one banana. There was, however, no four-way sharing of Sammy's banana. Ike would gulp it down by himself after surreptitiously extracting it from Sammy's lunch box, kept on a shelf behind Sammy's work station. Each morning, after making the snatch, Ike would call out, "Banana time?" and proceed to down his prize, while Sammy made futile protests and denunciations. George would join in with mild remonstrances, sometimes scolding Sammy for making so much fuss. The banana was one which Sammy brought for his own consumption at lunch time; he never did get to eat his banana, but kept bringing one for his lunch. At first this daily theft

startled and amazed me. Then I grew to look forward to the daily seizure and the verbal interaction that followed.

(Roy, 1960)

Many other worker initiated activities, both structured and unstructured, stem from autonomy by default. Sports (from spontaneous noon raquetball to organized bowling leagues) general frivolity (practical jokes, coin flips, "banana time", et al), club activities for stamp collectors, private pilots, bridge players, skiers, and personal interactions of both professional and private nature might all be identified as activities permitted by the organization.

Various behaviors are tolerated or encouraged in the work environment--not all of them are associated with performing assigned duties. Conflict, exchange and innovation can occur both while performing duties and at other times. Autonomy, particularly autonomy by default, enables many degrees of divergence in work situational behavior--leading to a variety of outcomes with which people might be satisfied. A general level of satisfaction may be derived from outcomes associated with performance and a different level of satisfaction may be derived from outcomes associated with membership. Membership outcomes include the results of doing those things required of all members, experiencing the restrictions and benefits common to all members and experiencing the results of organization autonomy by default with respect to non-performance activities.

Associating Work Outcomes with Membership and Performance

Some types of outcomes are readily associated with either performance or membership while others could be associated with both, depending on individual perspective.

Within the Air Force, examples of membership outcomes are: medical care, base exchange and commissary privileges, athletic facilities, availability of military hops, requirements to wear uniforms and maintain weight and appearance standards, 20 year retirement, up or out promotion policies, standard pay increases at specified years of service, opportunities for schooling, etc. Some outcomes are viewed negatively and some positively. In fact, the same outcome may be viewed negatively by some workers and positively by others (medical care, for instance).

Performance outcomes may include effectiveness ratings, feedback from one's supervisor and associated concerning performance, intrinsic outcomes from the work itself, etc.

Workers may perceive some outcomes as associated with both performance and membership. Social interaction in a broad sense can occur during the course of a planning meeting (performance) and during the lunch break between sessions (membership).

Job motivation research has focused primarily on the specific characteristics of the assigned duties, while organization climate studies tend to capture subjective responses of people to their work environments. The conclusions of researchers, notably Ralph Katz, that one must consider both the job and the environment in which it is embedded (R. Katz, 1978:218) is an important entering argument for the attempt of this research to categorize the association of work outcomes with membership and performance. Daniel Katz points out the need to separate outcomes associated with performance from those associated with membership:

Management will often overlook the distinction between individual and system rewards and will operate as if rewards administered across the board were the same in their affects as individual rewards.

(Steers and Porter, 1975:267)

A Model of Human Nature Consistent with Membership and Performance Satisfaction

The effects of system rewards and constraints probably will not be perceived as important if one's view of human nature is oriented strongly toward behavior reinforcement theory; performance is the key. However, as the concept of human nature broadens, other aspects of the work environment must be considered. Argyris argues that organization theory requires an explicit behavioral model because, without one, major difficulties arise in predicting the consequences of organizational events and processes. Furthermore, "many organizational variables are designed on an explicit or implicit model of man" (Argyris, 1973:156).

Differences between the models of human nature exist and should be recognized because they result in divergent behavioral implications:

We should not discount the differences. Both the expectancy and participative approaches refer to internal cognitive variables as the causes of behavior while Skinner does not. This distinction is important. It suggests that while our different approaches may generate similar predictions, their explanations of the causes of behavior are diametrically opposed. Understanding requires more than prediction. Thus, while our similarities are easily incorporated into operating technologies, there is still much heated debate as to the underlying causes of the prediction. Since this controversy bears directly on much of our philosophizing about man, it will undoubtedly influence how technologies of behavior are implemented.

(Mitchell, 1976:171)

Blackler and Brown provide a brief overview of three concepts ("paradigms") of human nature commonly found at the root of organization psychology theories:

Active Image:

Man is considered as separate from society and the world, is considered free, and, it is thought, can use his world for his own benefit by exercising his will. The writings of Nietzsche reflect such a view.

Passive Image:

Nature and society are considered paramount with the individual subordinate to them. One illustration of this view is to be found in the work of Spinoza.

Image of Kinship:

The self and actuality are jointly emphasized, with the need for individual authenticity and the importance of the context of existence being given equal emphasis in a vision of their simultaneity and non-separation. Alan Watts is one explicit advocate of this view as are a number (including probably Maslow and Rogers) of modern humanistic psychologists.

(Blackler and Brown, 1978:337)

The most comprehensive and intuitively appealing paradigm found in the literature of organizational behavior is that of Porter, Lawler, and Hackman summarized here:

People are Proactive

Individuals demonstrate a great deal of initiative - "proactive behavior". . . in seeking means to satisfy their personal needs and pursue goals and aspirations.

(Porter, Lawler, Hackman, 1975:38)

People are Social

Membership in organizations is a central and highly important part of the lives of most people . . . But more than this, some involvement with other people in groups or organizations seems to be necessary for most people to maintain their identity as people and their psychological well being.

(Porter, Lawler, Hackman, 1975:39)

People Have Many Different Needs

Needs are clusters of goals or outcomes a person seeks.

(Porter, Lawler, Hackman, 1975:41)

People Perceive and Evaluate

People selectively notice different aspects of their environments. They appraise what is seen (selectively noticed) and evaluate the experience in terms of present needs and values. "Since peoples' needs and past experiences often differ markedly, it should not be surprising to learn the their perceptions of the environment do likewise" (Porter, Lawler, Hackman, 1975:48-49). One set of beliefs a person maintains is expectancies, beliefs about what leads to what in the environment. Expectancies assist people in mapping the paths to fulfilling needs, achieving goals and avoiding pitfalls.

(Porter, Lawler, Hackman, 1975:52)

People Have Limited Response Capabilities

At least three categories of abilities/limitations are measurable: mental capabilities, manual and physical response capabilities, and interpersonal skills. In a general sense, Response Capability = aptitude x learning.

(Porter, Lawler, Hackman, 1975:61-64)

The complexity of the Porter, Lawler, Hackman paradigm separates it from most others in literature, yet two characteristics commonly accepted in Western cultures might be added; the inherent dignity of human beings and the need to be socially responsible. Both concepts are rooted in

Judeo-Christian (Old and New Testament) teachings. Dignity originates in mankind's creation in the image of God (Genesis 1:27). Social responsibility goes beyond being social creatures; people are designed to express a selfless attitude toward others (Deuteronomy 6:5, Matthew 22:36-40). Integrating these two concepts into the Porter-Lawler-Hackman paradigm provides the perspective on human nature used in this study.

Examining organization behavior from the framework of the Porter-Lawler-Hackman paradigm facilitates a broader look at the work environment than is sometimes taken. Individualism, and the individual performing on the job as the focus of attention, has come naturally from current influences in psychological theory. Nord challenges this orientation as having influenced the discipline more than it should:

The dominance of the individualistic perspective appears to be due more to the psychological roots of the researchers and the prevailing economic and political ideology than to a reasoned decision based on evidence. Other ideologies (e.g., socialist, cooperative) and research rooted in other disciplines (e.g., sociology) could lead to quite different (e.g., collectivistic) perspectives regarding job satisfaction.

(Nord, 1977:1027)

Ralph Katz concludes that one must study the interaction of the environment and individuals in order to more clearly understand the mechanisms by which people derive satisfaction from work environment (R. Katz, 1978).

Humans are highly complex creatures who experience a wide range of outcomes within the work environment. The totality of that experience must be examined in order to understand the way people form opinions

about work. Those who begin with simplistic paradigms of human nature can be satisfied with simple models and explanations of behavior. The Porter-Lawler-Hackman paradigm requires a systems perspective of the individual in a work environment.

Membership-Performance Perspectives and the Daspit Model of Work Motivation

The Daspit model of work motivation (Figure 2) uses the basic structure of the Porter-Lawler expectancy model and adds three important features: psychological states (Hackman and Oldham, 1976); clusters of outcomes and facet satisfactions (Katz and VanMaanen, 1977); and the determinants and results of overall job satisfaction. Daspit perceived overall job satisfaction to be determined by two types of facet satisfactions, those related to performance and those related to other aspects of being a member of the organization (not performance) (Daspit, 1978:80).

Another view of the relationships between those satisfactions is shown in Figure 3. Note that this figure does not include feedbacks nor the valence, expectancy determinants of behavior as in Figure 2. Outcomes associated with membership and outcomes associated with performance are clustered and evaluated in the same manner, leading to membership and performance satisfactions which in turn influence overall job satisfaction. Interaction feature outcomes and organization policy outcomes can be associated with both performance and membership, whereas job property outcomes can be associated only with performance. In this variant of the model all three facet satisfaction clusters can contribute to performance satisfaction, while only interaction feature and organizational policy facet satisfactions can contribute to membership

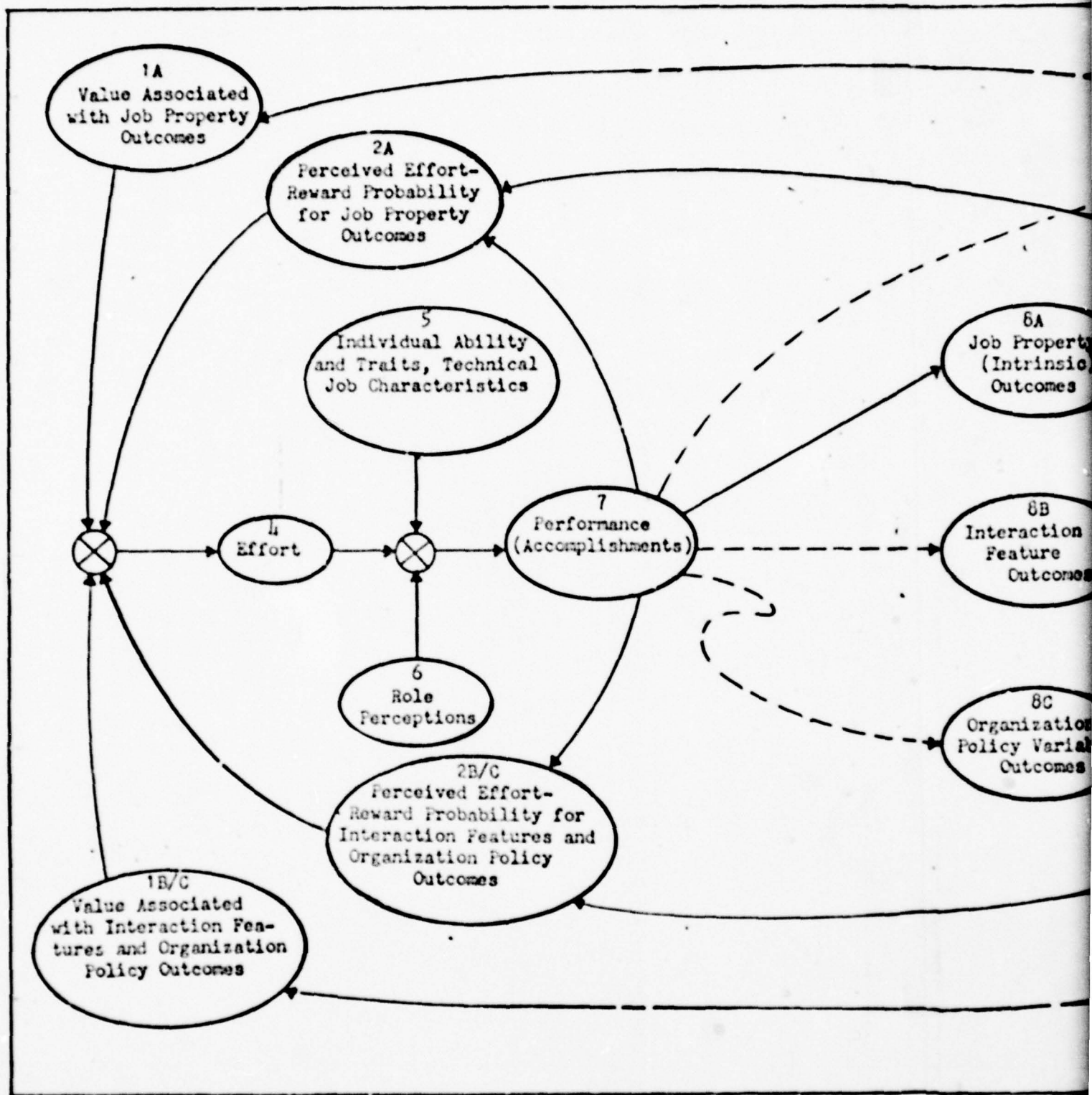
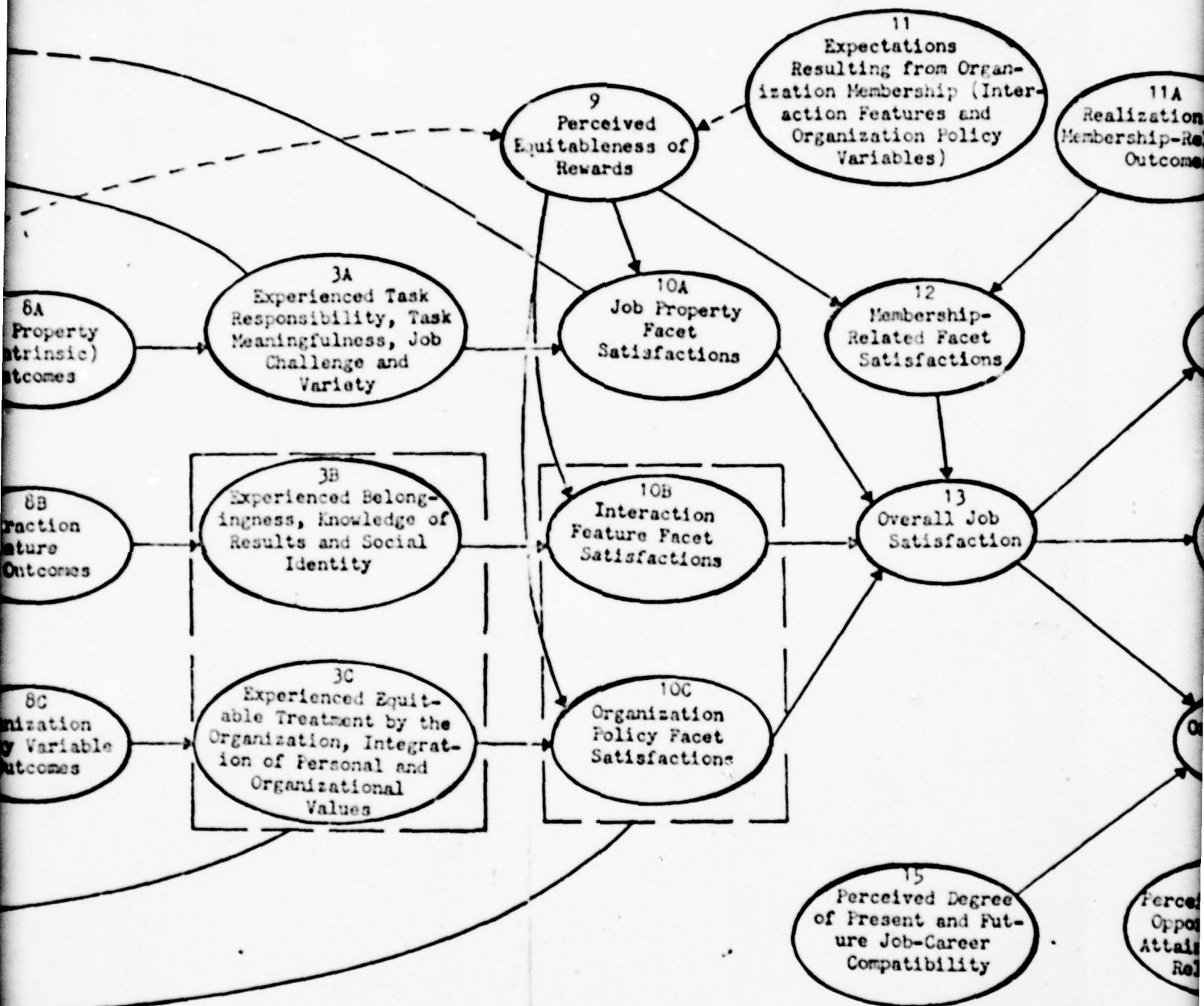
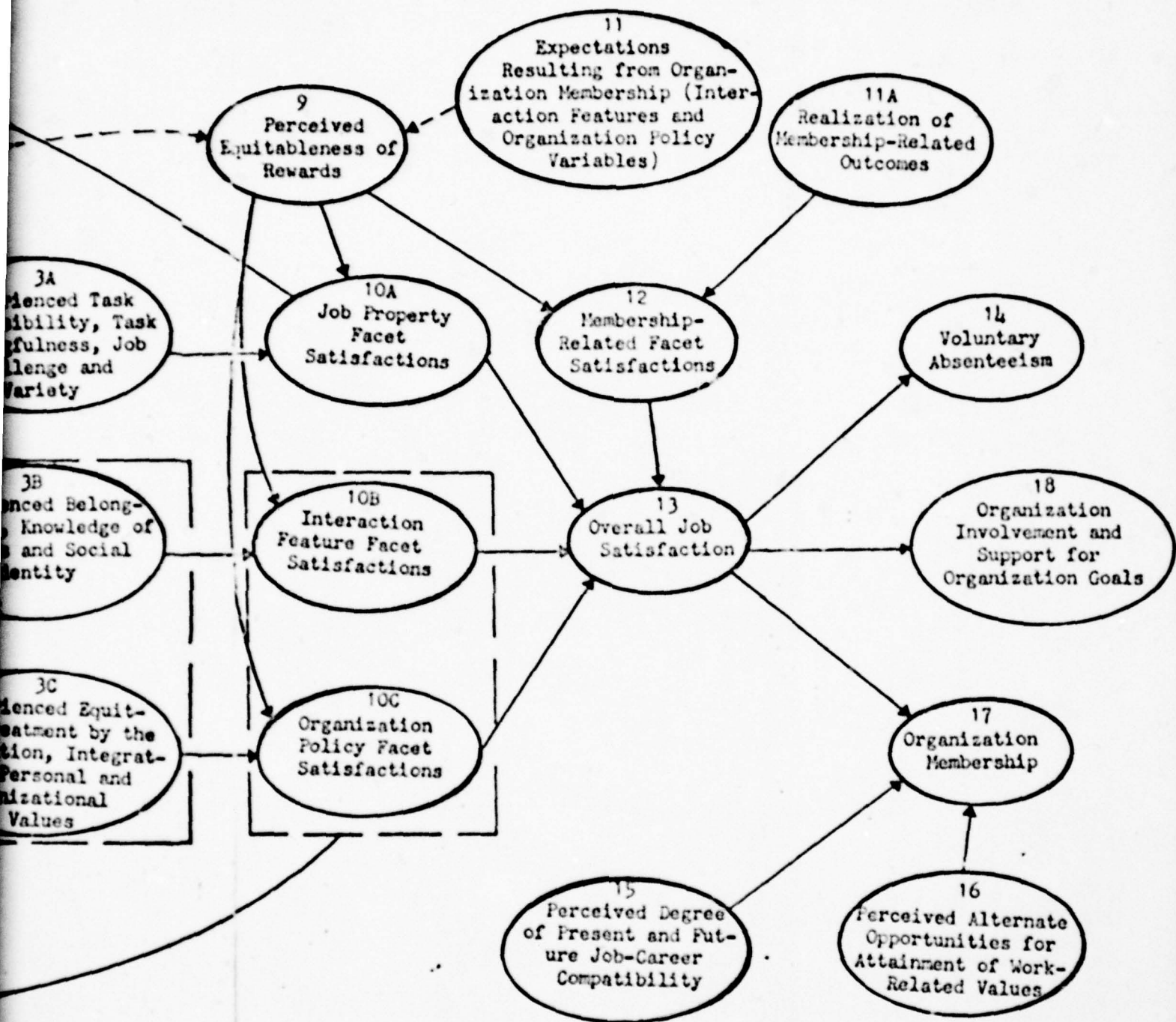


Figure 2
The Daspit Model of Work Motivation
18

1





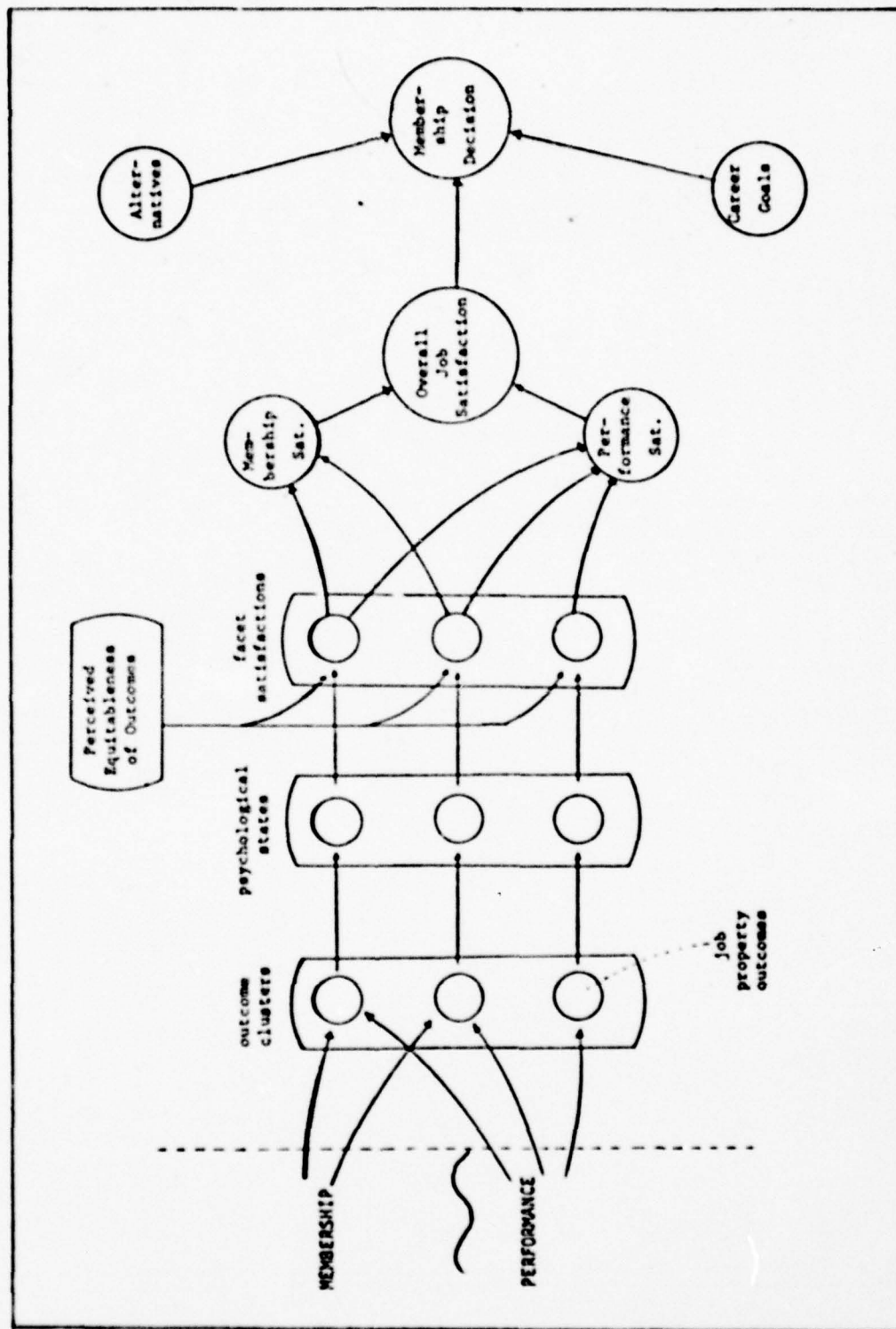


Figure 3
Variant One of the Dasplit Model

<u>Age Groups</u>	
Scientists and Engineers	<u>Primary Characteristics</u>
20-34	trial period, low intrinsic motivation, high need for self-fulfillment
35-49	need for stability and making a secure place in the field of work, achievement within a chosen area
50+	need for security, high intrinsic motivation and job involvement, lower concern for self-fulfillment and autonomy (Hall and Mansfield, 1975:208)
<u>Experience Groups</u>	
Managers	<u>Primary Influence</u>
year 1	getting established with and accepted by the organization
years 2-4	achievement, making a mark
years 5 and beyond	group attitudes toward the organization Buchanan, 535-542)

Figure 4
Comparison of Career and Age Groupings

satisfaction. The membership decision (stay or leave) is influenced by membership satisfaction, performance satisfaction, and perceptions of alternatives available. Depending on one's time perspective, strong hope or expectation for improved work environment conditions (promotion, transfer, etc.) can overcome low short term satisfaction influences on the membership decision. Following Daniel Katz's reasoning that system benefits are related to seniority (Steers and Porter, 1975:266), expected increased in perquisites would influence membership satisfactions more than performance satisfaction. However, expected promotions or increased responsibility perceived as resulting from performance will tend to increase performance satisfaction.

The Membership/Performance Satisfaction Ratio: Does It Change Over Time?

If the motivations of people change with time, then the values placed on membership and performance outcomes may also change. This section presents the results of two studies of career groups and the argument that as Air Force officers progress in the competitive phase of their careers, they will tend to value performance outcomes more than membership outcomes.

People are changed by their work experience, or so it is commonly thought. Argyris suggested that work experiences either promote or retard growth along certain personality characteristic scales (Argyris, 1973:144). In separate studies, Brousseau and Hall and Mansfield agreed that "the substantive complexity of the work has a significant impact on the worker's psychological functioning" (Brousseau, 1977:22).

Figure 4 summarizes the findings of two studies concerning career groups. Buchanan examined the effects of socialization on managers while Hall and Mansfield studied career groups in scientific and engineering professions.

Career stages within the Air Force officer corps may not be so distinct as those in Figure 5. Pressure toward career broadening for promotion potential discourages permanently focusing on one specialty during the first seven to ten years. After seven years most captains become aware of the need to prepare themselves for promotion competition through selected education and job experiences.

The study by Ralph Katz, mentioned earlier in this chapter provides insight into the work environment from the standpoint of longevity. Katz, studying the relationship of job satisfaction and five task dimensions (skill variety, task identity, task significance, autonomy, and feedback from the job), found the strength of those relationships depends on both job longevity and tenure. A salient finding was ". . . the overall satisfaction of workers with considerable job longevity and organizational longevity is not related to the task characteristics of their present jobs" (R. Katz, 1978:213-214). Respondents with four to six months job longevity demonstrated the strongest relationships between job satisfaction and various job dimensions (R. Katz, 1978:218). Something causes people to change the way they react to their jobs over time. Katz concludes:

The thrust of these findings supports the notion that one must also consider the social environment in which jobs are embedded to determine how individuals describe and feel about their work. Much of an employee's satisfaction may derive from his or her definition of and interaction with the job setting and not simply the fulfillment of psychological needs.

(R. Katz, 1978:218)

Changes in motivation have been observed with respect to career groups (scientists and engineers), experience (managers), and longevity (government workers). Of the many agents that might cause such changes, social interaction in the work environment is clearly important, as Katz implies (R. Katz, 1978:218).

The social environment and job setting are significantly influenced by the group or groups with which an individual interacts. In The Study of Groups, Klein emphasizes the influence of group norms on individual standards. As an individual belongs to more and more groups, the most powerful norms are those that are common to the most or all groups. "The more or less common denominators will have the greatest effect on him and in this way the individual will find himself subject to culture-wide pressures. In our culture, the most striking of these common denominators is success" (Klein, 1956:79). Success by the group standard, is the goal. As a worker absorbs information about the group, efforts are channeled in the direction of the group standard. Two factors determine the degree of influence the group holds over an individual: the information available to the individual independently of the group and the psychological pressure of the group (Klein, 1956:86).

With regard to a sample population as drawn for this study (Squadron Officers School and Air Command and Staff College students) one might expect to observe officers with fewer years service exhibiting more value for membership related outcomes and less for performance outcomes while respondents in the more competitive portion of their careers (greater than six years) would value performance outcomes more. The findings of Buchanan and Hall and Mansfield are consistent with this

expectation. Group pressure toward success may be particularly powerful within the officer corps, confusing somewhat the results observed for younger groups.

Organizationally one might expect to see officers who are most interested in promotion potential gravitating toward higher levels (above wing level), and those who value promotion less (and therefore performance outcomes less) to seek lower organizational levels.

The effects associated with different career stages may appear as changes in the values placed on membership and performance satisfactions. This study used a membership satisfaction average to performance satisfaction average ratio to examine the relationships between membership, satisfaction, performance satisfaction, and overall job satisfaction with the work situation for different career and organizational groupings of respondents.

As a group from higher organization levels is considered, one should expect a stronger association of performance satisfaction with overall job satisfaction and a weaker association between membership satisfaction and overall job satisfaction.

From the initial few months of active duty until somewhere between the fourth to the seventh year, officers may value membership outcomes more than performance outcomes. More specifically, membership satisfaction should be a stronger predictor of overall job satisfaction than performance satisfaction is. Because a number of phenomena interact with an officer when to encourage the quest for promotion, performance satisfaction should rapidly take over as the predominant predictor of overall job satisfaction.

Summary

Activities in the work environment generate outcomes--experiences that are perceived as adding to or detracting from one's satisfaction with the work situation. Activities and associated outcomes are not limited to those efforts expended toward achieving organizational goals. On the contrary, a significant amount of time and effort may be expended in activities which the organization allows but does not benefit from directly. The Porter-Lawler-Hackman paradigm of human nature encourages a systems view of people in work situations. People are complex; they operate in environments which provide many experiences not directly related to job performance as illustrated with Roy's example of "Banana time." The individual can associate outcomes and their related satisfactions with specific performance of duties or with simply being a member of the organization. Managers need to be aware of the work environment outcomes that employees value and whether those outcomes are associated with performance (rewards/penalties for good or bad performance) or with simply being a member of the organization. Because the motivations of workers change with time and longevity, the Air Force officers constituting the sample population for this study might be expected to report stronger relationships between performance satisfaction and overall job satisfaction as both years of service and organization level increase.

III. Methodology

The general approach to examining the issue of membership satisfaction, job performance satisfaction, and their relationships with overall job satisfaction was to gather data concerning the work environment from a sample of workers. Responses to twenty work environment characteristics, years of service in the Air Force and level of assignment were analyzed. This chapter discusses the data collection instrument, the sample population, the form of the data collected, definitions of variables used in analysis, and the analytical techniques used to test the hypotheses.

Instrument

The Membership-Performance Questionnaire (MPQ, Appendix A) was developed and used for data collection in support of this study. Respondents, who as noted earlier were students at two Air Force schools, were asked to answer questions as they pertained to the job they held longest at their duty station immediately prior to attending school (MPQ p2).

Section I. Section I data was analyzed in a separate research project. The strengths of 12 work characteristics were measured:

- Ability Utilization
- Achievement
- Activity
- Authority
- Creativity

Independence
Moral Values
Recognition
Social Service
Variety

Measurements of the strengths of the other eight characteristics were not attempted because the researchers believed that respondents would have to formulate answers based on a sense of satisfaction with those outcomes. For example, a question concerning the amount of pay would likely generate a satisfaction related response. The questions were designed from the format of Section II of the Job Diagnostic Survey (Hackman and Oldham, 1974), using a five point scale as in this example:

To what extent does your work situation make use of your abilities and skills?

A B C D E

Very little. I seldom have the chance to do things that are suited to my abilities and skills.

I sometimes have the chance to make use of my abilities and skills.

Very much. Most of the time I have the opportunity to do things that are well suited to my abilities and skills.

Section II. The Long-Form Minnesota Satisfaction Questionnaire (MSQ), used by permission of Vocational Psychology Research, University of Minnesota, (Weiss, et al, 1967), constituted Section II of the MPQ. Letters authorizing use of the MSQ in data collection and as part of this thesis are included at Appendices B and C. The MSQ, a copyrighted and

well validated instrument, measures satisfactions with these twenty work environment outcomes (parentheses indicate the variable name used in analysis):

1. *Social service.* The chance to do things for other people (SOCSERV).
2. *Creativity.* The chance to try my own methods of doing the job (CREATIVE).
3. *Moral Values.* Being able to do things that don't go against my conscience (MORALVAL).
4. *Independence.* The chance to work alone on the job (INDEPEN).
5. *Variety.* The chance to do different things from time to time (VARIETY).
6. *Authority.* The chance to tell other people what to do (AUTHORIT).
7. *Ability utilization.* The chance to do something that makes use of my abilities (ABILUTIL).
8. *Social status.* The chance to be "somebody" in the community (SOCSTAT).
9. *Air Force policies and practices.* The policies and practices of the Air Force toward its members (AFPOLICY).
10. *Supervision--human relations.* The way my boss handles subordinates (SUPHR).
11. *Security.* The way my job provides for steady employment (SECURITY).
12. *Compensation.* My pay and the amount of work I do (PAY).
13. *Working conditions.* The working conditions (WORKCOND).
14. *Advancement.* The chances for advancement on this job (ADVANCE).
15. *Supervision--technical.* The competence of my supervisor in making decisions (SUPTECH).
16. *Co-workers.* The way my co-workers get along with each other (COWORKERS).

17. *Responsibility*. The freedom to use my own judgment (RESPON).
 18. *Recognition*. The praise I get for doing a good job (RECOG).
 19. *Achievement*. The feeling of accomplishment I get from the job (ACHIEVE).
 20. *Activity*. Being able to keep busy all the time (ACTIVITY).
- (Weis, et al, 1967:1-2)

Five questions are asked for each MSQ characteristic, and each of those questions is separated from the others by nineteen other questions. For example, Questions 19, 39, 59, 79, and 99 address ability utilization. The sum of these individual scores was used in analysis ($ABILUTIL = Q19 + Q39 + Q59 + Q79 + Q99$). The development of other composite variables is addressed later in this chapter.

Section III. Respondents' association of work environment outcomes with performance of duties and other aspects of being a member of the organization (organization membership) was recorded by Section III. For 16 of the 20 outcomes considered by the MPQ, a series of three questions were asked, one to determine if the outcome was present, one to measure the association with performance alone, and one to measure the association with membership. For example, interaction with co-workers was addressed in this manner:

Does your work environment provide you opportunities to interact with your co-workers?

- a. Yes
- b. No

If "No", please skip to question 157.

Opportunities to interact with co-workers occur when I am performing my duties.

A B C D E

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
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Opportunities to interact with co-workers occur simply from being a member of the organization.

A B C D E

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
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One assumption used in the development of Section III was that four of the work environment characteristics (organization policy, job security, compensation, and physical working conditions) will always exist to some degree. For those four facets, only the latter two questions were presented.

The opportunity to separately associate a work environment outcome with either, both, or neither performance or membership allowed significant freedom of response. However, one recognized limitation of the MPQ, in terms of freedom of response, was the use of the 20 MSQ scales. Other researchers have recommended using more facets (Tuttle, 1975) while some well known instruments (the Job Diagnostic Survey for instance) use less (Hackman, Oldham, 1974). Tuttle's list is presented in Appendix F. The MSQ, with its associated 20 scales was chosen because:

(1) It is a well validated and widely used instrument. The researchers associated with formulating the MPQ opted to build the instrument on the foundation of a validated questionnaire.

(2) The MPQ was developed to collect data for two research projects, the other being an attempt to replicate previous analysis conducted on data collected with the MSQ. Consistency of data collection instruments was important to the results of that study (Talbot, 1979).

Section IV. The Hoppock measure of job satisfaction is used to obtain a global or overall measure of job satisfaction. Equal weighting of the four questions is used to obtain a simple sum representing overall satisfaction. The validity of the Hoppock measure used in this manner, was tested by McNichols, Stahl, and Manley who concluded:

Although developed over 40 years ago, Hoppock's job satisfaction measure appears to have significant utility in contemporary organizational research. The measure performs well when examined in terms of its distribution, construct, convergent, and concurrent validities and reliability. Furthermore, the measure performs consistently when applied to a variety of sample populations including many different job categories, organizational levels, and demographic groupings. The authors consequently suggest its use as a compromise between the lengthy, sophisticated job satisfaction instruments and the unvalidated satisfaction questions often found in survey questionnaires.

(McNichols, Stahl, and Manley, 1977)

Although the responses to two of the four Hoppock questions are normally reversed, the MPQ presented responses to all four questions in the same order. There is no evidence to suggest that this failure to reverse two questions should have had a significant impact on results (McNichols, June 1979).

Section V. Nine demographic questions addressed age, sex, marital status, rank, total years in the Air Force, job level, aeronautical rating, education level, and reporting official. This data is summarized in Appendix B.

Instrument Validity. Section III of the MPQ has not been validated. The questions ask subjects to consider two features of the work environment (membership and performance) and the work characteristics associated with them. People may not be accustomed to making these kinds of associations or considering their work environments at this level of aggregation. A draft version of the instrument was distributed to 24 Air Force officers. Some responded without registering confusion or uncertainty, but others did not understand some of the questions. Following in-depth interviews of four subjects of this trial test, their recommendations for improving clarity were incorporated into the final version of the MPQ. An analysis of respondents' uncertainty and the relative dependence of responses is presented in Chapter IV. The MPQ apparently did separately measure the association of facets with membership and performance.

In retrospect, the final version of the MPQ may have been too long. The MPQ asked respondents to consider some work outcomes nine separate times: one in Section I, five in Section II, and three in Section III. One respondent commented on a returned questionnaire: "This is a perfect example of internal validity being carried to a ridiculous extreme." The length and repetitiveness probably worked against the return rate.

Sample

The instrument was distributed randomly to 575 students in two Air Force Professional Military Education courses, Squadron Officers School (SOS) and Air Command and Staff College (ACSC). SOS is a nine week course stressing communicative skills and group participation in problem solving for first lieutenants and captains. ACSC enrollment lasts for ten months and is designed for majors and major selectees.

Two characteristics of the ACSC student population may have caused some bias for any attempt to generalize to a larger population. The first is that students are chosen to attend ACSC by virtue of their competitive military records. They are on the whole very successful or have been perceived by the Air Force's school selection board as having above average potential for increased responsibility. This aura of success may influence the reported levels of satisfaction with the overall work environment as well as specific facets. Another potential bias comes from the length of time students had been away from their former jobs--ACSC graduation was scheduled within two weeks of the date the MPQ was administered, so most respondents had been away from their previous work environments in excess of ten months. This time lag may have caused inaccuracies in identifying a facet as associated with performance or membership and/or other inaccuracies in responses.

Two factors mitigated against a higher return rate (46.4%): (1) The length of the questionnaire may have discouraged some students from completing it. The course in both schools is rigorous and free time is dear. (2) ACSC students were preparing to move their families to new permanent duty stations and had little time for non-essential activities. In addition, the ACSC students had just completed a lengthy end of course survey.

Demographic data summaries are presented in Appendix D. Although respondents came from units through the Air Force the homogeneity of the sample stands out. About 75 percent have accomplished some graduate level education, 47 percent have master's degrees. Eighty-three percent are married, 66 percent are captains, 68 percent came from wing or squadron level jobs, and 94 percent are male. One factor that may be significant in the interpretation of results is the career stages of the respondents. Nearly all students are in the competitive stages of their careers--not having decided to leave the Air Force and not having been passed over for or successfully made promotion to major. Homogeneity could be a source of bias in the sample (for generalization purposes) in that perceptions of the work environment may not vary enough to be representative of either the Air Force officer population in general or to broader definitions of work groups.

Four cases (Tables I-IV) were selected from the data base to provide an overview of the types of data collected by the MPQ. "Presence" is the response to questions 1-12 indicating the degree that a facet is perceived to be present in the work environment (from 1-very little to 5-very much). "Facet Satisfaction" is the sum of the five MSQ questions related to the facet and can range from 5-not satisfied to 25-extremely satisfied. "Association" is the response to the question of facet association with membership and performance. A 4 or 5 indicates a positive association, a 3 indicates uncertainty about the association, and a 1 or 2 reflects that the respondent does not associate the characteristic with membership/performance. An X indicates that the facet was not perceived to be present in that respondent's work environment.

Table I
Response from a Squadron Level Pilot (Captain)

Rank: Captain Education Level: BS Hoppock Score: 18
Age: 25-26 Aero Rating: Pilot (primary flying)
Unit Level: Squadron Years in AF: 5

*Presence (1-5)		Satisfaction	**Association		Facet
			Performance	Membership	
1	2	13	2	4	SOCIAL SERVICE
2	3	15	4	3	CREATIVITY
3	2	15	X	X	MORAL VALUES
4	3	15	4	3	INDEPENDENCE
5	4	14	X	X	VARIETY
6	1	11	X	X	AUTHORITY
7	3	12	4	3	ABILITY UTILIZATION
8	4	17	2	4	SOCIAL STATUS
9	--	10	4	4	AF POLICIES
10	--	13	3	4	SUPERVISION-H.R.
11	--	15	3	4	SECURITY
12	--	11	2	4	COMPENSATION
13	--	15	4	4	WORKING CONDITIONS
14	3	15	3	3	ADVANCEMENT
15	--	13	4	4	SUPERVISION-TECH
16	--	20	4	4	CO-WORKERS
17	--	13	4	2	RESPONSIBILITY
18	2	12	X	X	RECOGNITION
19	2	13	X	X	ACHIEVEMENT
20	2	10	X	X	ACTIVITY

* Dash means not measured by the MPQ.

**X means outcome was reported not present in work environment.

Table II
Response from a Squadron Level Nonrated Captain

Rank: Captain	Education Level: BS	Hoppock Score: 20
Age: 27-28	Aero Rating: Non-rated	
Unit Level: Squadron	Years in AF: 5	

*Presence (1-5)		**Association			
		<u>Satisfaction</u>	<u>Performance</u>	<u>Membership</u>	<u>Facet</u>
1	5	20	4	4	SOCIAL SERVICE
2	4	20	4	3	CREATIVITY
3	2	19	4	3	MORAL VALUES
4	3	16	4	3	INDEPENDENCE
5	5	22	4	4	VARIETY
6	4	21	4	4	AUTHORITY
7	4	16	4	4	ABILITY UTILIZATION
8	5	14	4	3	SOCIAL STATUS
9	--	13	4	4	AF POLICIES
10	--	19	4	4	SUPERVISION-H.R.
11	--	19	3	4	SECURITY
12	--	17	4	4	COMPENSATION
13	--	16	3	4	WORKING CONDITIONS
14	4	20	5	3	ADVANCEMENT
15	--	18	X	X	SUPERVISION-TECH
16	--	19	4	4	CO-WORKERS
17	--	21	4	3	RESPONSIBILITY
18	3	20	4	3	RECOGNITION
19	3	18	4	4	ACHIEVEMENT
20	4	21	5	5	ACTIVITY

* Dash means not measured by MPQ.

**X means outcome was reported not present in work environment.

Table III
Response from an Air Staff Major

Rank: Major Education Level: MS/MA Hoppock Score: 18
Age: 35-36 Aero Rating: Non-rated
Unit Level: Air Staff Years in AF: 11-13

	<u>*Presence (1-5)</u>	<u>Satisfaction</u>	<u>**Association</u>		<u>Facet</u>
			<u>Performance</u>	<u>Membership</u>	
1	5	12	4	4	SOCIAL SERVICE
2	3	14	4	3	CREATIVITY
3	3	15	3	4	MORAL VALUES
4	4	18	4	2	INDEPENDENCE
5	4	20	4	4	VARIETY
6	3	8	4	2	AUTHORITY
7	4	14	4	3	ABILITY UTILIZATION
8	3	10	4	4	SOCIAL STATUS
9	--	10	4	4	AF POLICIES
10	--	12	4	4	SUPERVISION-H.R.
11	--	20	4	2	SECURITY
12	--	5	2	4	COMPENSATION
13	--	7	4	4	WORKING CONDITIONS
14	2	8	X	X	ADVANCEMENT
15	--	13	4	4	SUPERVISION-H.R.
16	--	20	4	4	CO-WORKERS
17	--	13	X	X	RESPONSIBILITY
18	3	16	4	2	RECOGNITION
19	3	15	4	3	ACHIEVEMENT
20	4	20	4	3	ACTIVITY

* Dash means not measured by MPQ.

**X means outcome was reported not present in work environment.

Table IV
Response from a PhD Captain

Rank: Captain Education Level: PhD Hoppock Score: 21
Age: 31-32 Aero Rating: Non-rated
Unit Level: Other Years in AF: 6

	<u>*Presence (1-5)</u>	<u>Satisfaction</u>	<u>**Association Performance</u>	<u>Membership</u>	<u>Facet</u>
1	5	21	5	2	SOCIAL SERVICE
2	4	15	4	2	CREATIVITY
3	1	17	X	X	MORAL VALUES
4	4	19	4	2	INDEPENDENCE
5	3	14	X	X	VARIETY
6	1	12	4	2	AUTHORITY
7	4	13	4	2	ABILITY UTILIZATION
8	5	20	4	2	SOCIAL STATUS
9	--	10	4	4	AF POLICIES
10	--	9	X	X	SUPERVISION-H.R.
11	--	17	3	4	SECURITY
12	--	8	2	4	COMPENSATION
13	--	10	4	3	WORKING CONDITIONS
14	5	13	4	3	ADVANCEMENT
15	--	12	2	4	SUPERVISION-TECH
16	--	20	3	4	CO-WORKERS
17	--	19	5	2	RESPONSIBILITY
18	3	16	4	2	RECOGNITION
19	5	19	5	2	ACHIEVEMENT
20	5	18	X	X	ACTIVITY

* Dash means not measured by MPQ.

**X means outcome was reported not present in work environment.

Analysis Variables

At the first conceptualization of the membership/performance constructs, the researcher tended to consider them "either-or" phenomena, reasoning that a worker would associate a characteristic or a work environment either with the performance of duties or with other aspects of membership in an organization. In order to avoid forcing this perspective on respondents, Section III of the MPQ was built with the potential for great freedom of response. This freedom led to a wide range of variables and combinations of variables to be used in analysis.

Three categories of associations were important to this study. The categories were defined by comparing the paired association questions presented for each facet:

1. Performance Only Associations. Responses which positively associated an outcome only with performance.

Example:

Opportunities to interact with co-workers occur when I am performing my duties.

(Chose D or E)

A B C D E

Strongly
Disagree

Disagree

Neither Agree
Nor Disagree

Agree

Strongly
Agree

Opportunities to interact with co-workers occur simply from being a member of the organization.

(Chose A, B, or C)

A B C D E

Strongly
Disagree

Disagree

Neither Agree
Nor Disagree

Agree

Strongly
Agree

2. Membership Only Associations. Responses which positively associated an outcome with membership.

Example:

Opportunities to be recognized occur when I am performing my duties.

(Chose A, B, or C)

A B C D E

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
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Opportunities to be recognized occur simply from being a member of the organization.

(Chose D or E)

A B C D E

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
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3. Membership and Performance Associations. The outcome was associated positively with both membership and performance.

Example:

Opportunities to be active much of the time occur when I am performing my duties.

(Chose D or E)

A B C D E

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
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Opportunities to be active much of the time occur simply from being a member of the organization.

(Chose D or E)

A B C D E

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
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Two other categories of responses were examined but were not considered significant to the overall analysis effort:

4. Neutral. Both performance and membership associations were reported as C--"neither agree nor disagree".
5. Low. Both performance and membership associations were reported as A or B--"disagree" or "strongly disagree" that the outcome was associated with membership/performance.

Within these two categories a number of variables were constructed to assist analysis: (P1 through P20 are the variable names for the questions associated with performance; M1 through M20 are the variable names for questions associated with membership. In all cases where the notation "i" is used, i varies from 1 to 20).

1. Performance Only Associations:

PMAXCi: (Performance Max-Count i) = 1 if $P_i = 4$ or 5 and $M_i = 1, 2$, or 3.

PMCOUNT: (Performance Max-Count) = $\sum PMAXC_i$.
PMCOUNT is the number of facets the individual associated with performance only.

PMAXSi: (Performance Max-Score i) = facet satisfaction score from the MSQ if $PMAXC_i = 1$. For example, if $PMAXC_1 = 1$ for case 151, $PMAXS_1$ for case 151 would be the value of the variable SOCSERV, the satisfaction one derives from being able to serve others in the work environment.

PMSCORE: (Performance Max-Score) = $\sum PMAXS_i$
PMSCORE represents the sum of MSQ facet satisfactions for the outcomes which an individual associated with performance alone.

PMSAVG: (Performance Max-Score Average) = $PMSCORE \div PMCOUNT$
PMSAVG represents the individual's average satisfaction with performance related outcomes.

2. Membership Only Associations:

MCI: (Membership Max-Count i) = 1 if $M_i = 4$ or 5
and $P_i = 1, 2$, or 3

MEMCOUNT: (Membership Max-Count) = $\sum MCI$
MEMCOUNT is the number of facets the individual
associated with membership only.

MSI: (Membership Max-Score i) = facet satisfaction
score from MSQ if $MCI = 1$. For example, if
 $MCI = 1$ for case 152, MSI for case 152 would
be the value of the variable SOCSERV, as in
PMAXSi above.

MEMSCORE: (Membership Max-Score) = $\sum MSI$
MEMSCORE is the sum of MSQ facet satisfactions
for the outcomes which an individual associates
with membership alone.

MEMSAVG: (Membership Max-Score Average) = MEMSCORE
÷ MEMCOUNT. MEMSAVG is the individual's average
satisfaction with membership related outcomes.

3. Positive associations with both membership and
performance.

PMPI: (Positive Membership and Performance Count i)
= 1 if $P_i = 4$ or 5 and $M_i = 4$ or 5

PMPCOUNT: (Positive Membership and Performance Count)
= $\sum PMPI$. PMPCOUNT is the number of facets
the individual associated positively with both
membership and performance.

PMPSi: (Positive Membership and Performance Score i)
= facet satisfaction score from MSQ if $PMPI = 1$.

PMPCORE: (Positive Membership and Performance Score)
= $\sum PMPSi$. PMPCORE is the sum of MSQ facet
satisfactions for the outcomes that an indivi-
dual associated with both membership and
performance.

PMPSAVG: (Positive Membership and Performance Score
Average) = PMPCORE ÷ PMPCOUNT. PMPSAVG is
the individual's average satisfaction with
outcomes associated positively with both
membership and performance.

4. Neutral associations with both membership and performance.

N_i : (Neutral i) = 1 if $P_i = 3$ and $M_i = 3$

No other neutral associations variables were formed.

5. Negative associations with both membership and performance.

$L_i = 1$ if $P_i = 1$ or 2 and $M_i = 1$ or 2 .

No other variables were formed.

Hypotheses

- H1 Organization membership satisfaction and job performance satisfaction are separate and distinguishable phenomena that characterize work environments.

From the observations of several theorists and researchers, the work situation, including specific aspects of required duties and the environment in which they are embedded, should be examined as an open system (Ralph Katz, 1978; Blackler and Brown, 1978). The Porter-Lawler-Hackman paradigm of human nature presented in Chapter II leads to the premise that people join and remain with organizations for something more than rewards of their immediate duties. H1 attempts to establish the framework of a membership-performance viewpoint that includes the duties, environment, and time perspective present in the work environment.

The analysis of H1 involved testing two secondary hypotheses:

- H1a Responses to individual membership and performance associations questions are not highly correlated.

Responses that demonstrate strong positive correlations might indicate that the respondent was recording his or her satisfaction level with that facet rather than the association with membership or performance. Pearson product-moment correlations were computed for each pair of association questions. These are zero-order correlations because no controls for the influence of other variables are made (Nie, et al, 1975:280).

H1b Certain work environment characteristics are associated with performance alone, others with membership alone, and still others with both membership and performance.

The hypothesized division of associations was:

<u>Performance</u>	<u>Membership</u>	<u>Both</u>	<u>Neutral</u>	<u>No Association</u>
Creativity	Air Force	Social Service	None	None
Independence	Policy	Moral Values		
Authority	Pay	Variety		
Ability	Work	Social Status		
Utilization	Conditions	Supervision-		
Advancement		Human Relations		
Supervision-		Security		
Technical		Co-workers		
Responsibility		Activity		
Achievement				

Each case was examined to determine into which of the five categories the association of each facet fell in order to provide insight into the distribution of membership-performance associations for the sample--the determination if specific facets were associated with membership, performance, or both, as expected.

H2 Organization membership satisfaction and job performance satisfaction are two primary determinants of overall job satisfaction.

Using multiple stepwise regressions (Cohen, et al, 1977) with Hoppock job satisfaction scores as the criterion variable, the predictive power of PMSAVG, MEMSAVG, and PMPSAVG were compared with the predictive power of the 20 MSQ satisfaction scores. The adjusted R^2 values of the two regression models were expected to be comparable. A second comparison was made by building a stepwise regression model with all 23 variables in competition. The three score averages were expected to enter the equation early and explain significant portions of the variance in Hoppock scores.

H3 There exists some ratio of membership satisfaction to performance satisfaction for which overall job satisfaction is maximized.

Figure 5 depicts how the data base was divided into three groups according to overall job satisfaction score: low (13.4%, $N = 35$); medium (72.8%, $N = 190$), and high (14.4%, $N = 38$). The ratio of average membership satisfaction and average performance satisfaction (MEMSAVG : PMSAVG) were compared using Student's t statistic with pooled variance:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{S_p^2 / n_1 + S_p^2 / n_2}$$

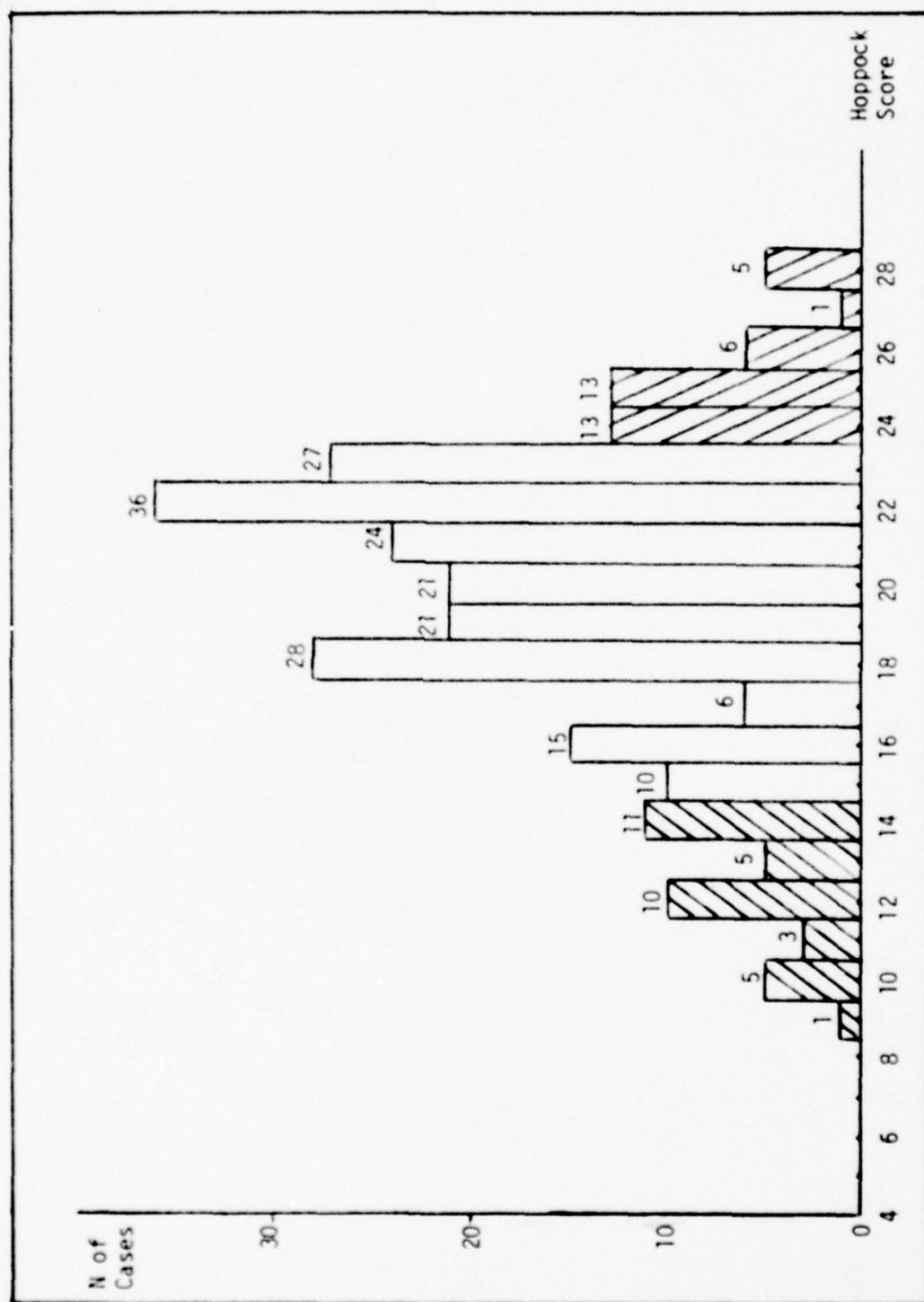


Figure 5
Categorization of the Sample By Hopcock Score

Tests were conducted on these hypotheses:

$$\text{a. } H_0: \mu_l = \mu_m \quad \text{b. } H_0: \mu_l = \mu_h \quad \text{c. } H_0: \mu_m = \mu_h$$

$$H_a: \mu_l \neq \mu_m \quad H_a: \mu_l \neq \mu_h \quad H_a: \mu_m \neq \mu_h$$

where μ_l = MEMSAVG : PMSAVG for low group

μ_m = MEMSAVG : PMSAVG for medium group

μ_h = MEMSAVG : PMSAVG for high group

Hypotheses 4 and 5 were considered together:

H4 During early career stages, organization membership satisfaction is more strongly associated with overall job satisfaction than is job performance satisfaction.

H5 During later career stages, job performance satisfaction is more closely associated with overall job satisfaction than is organization membership satisfaction.

Hall and Mansfield's work with career stages and Buchanan's results from longevity studies (Figure 2) point to initial break-in periods or early career stages during which people need to feel accepted by the organization, followed by a period in which workers (scientists and engineers) begin seeking achievement within a selected area of endeavor (specialty) (Hall and Mansfield, 1975:208). Air Force officers might be considered to be seeking achievement once they have committed them-

selves to the organization and begin structuring a career that holds a potential for promotion. The exact point in time at which that occurs may not exist--some second lieutenants are career oriented and have long range plans while some captains with ten or more years of service have not yet decided to stay with or leave the Air Force for other career fields.

Hypotheses 4 and 5 were tested by dividing the cases into groups according to number of years in the Air Force. For each group, zero order correlation coefficients were computed for the relationship between overall job satisfaction and three variables: PMSAVG, MEMSAVG, and PMPSAVG. An increasing relationship over time was postulated between the satisfaction one associates with performance alone (PMPSAVG) and overall job satisfaction. Similarly a decreasing relationship over time between satisfaction with membership related outcomes (MEMSAVG and PMPSAVG) and overall job satisfaction was expected.

Multiple stepwise regression was also used to examine the relationship of PMSAVG, MEMSAVG and PMPSAVG with Hoppock scores as the three predictor variables were allowed to compete for entry into the model.

H6 During the competitive career (while workers perceive a reasonable opportunity for promotion) workers at higher echelons value performance outcomes more highly than do workers at lower echelons.

Concepts of professional growth include the benefit to promotion potential of experience at higher headquarter. H6 is based on the

thought that those who desire promotion sufficiently will gravitate to higher echelons (MAJCOM and above). The data was divided as follows:

<u>Group</u>	<u>Organizations</u>
1	Wing, Squadron
2	Air Staff, DOD, JCS/National Agencies

The groups were compared by using zero-order correlations between overall job satisfaction and job performance satisfaction (PMSAVG), membership satisfaction (MEMSAVG), and satisfaction associated with both performance and membership (PMPSAVG). The relative importance of these three predictor variables were then examined by formulating linear regression models for each group of respondents, using Hoppock as the criterion variable.

Summary

The Membership-Performance Questionnaire, built on a foundation of the Minnesota Satisfaction Questionnaire, added questions to measure the strengths of certain facets in the work environment and to identify the association of a facet with organization membership and job performance. The sample (N = 267) was drawn from the population of SOS and ACSC students in May 1979. Due to the selection process, particularly for ACSC, results of this study may reflect a population bias toward success orientation to a degree not necessarily found in the Air Force officer corps as a whole. Responses to Hoppock, MSQ, and membership/performance questions were considered interval data. Six hypotheses were presented to be tested using data collected by the MPQ.

IV. Results and Discussion

This chapter presents the results of analysis for each of the six research hypotheses, including secondary hypotheses postulated and tested in the course of examining the main hypotheses. A validity check on section three of the questionnaire was conducted as part of the test of H1 in order to determine if respondents' answers to membership association questions were highly correlated with their answers to performance association questions. The relative independence of these answers was established and two predominant classes of associations emerged, outcomes associated with performance alone and outcomes associated with both membership and performance. Only one outcome was consistently associated with membership alone--pay. The relationship between overall job satisfaction and satisfaction with the two classes of outcomes was found to change at about the seven year point. Prior to seven years of service, satisfaction with outcomes associated with both membership and performance was significant as a predictor of overall job satisfaction while satisfaction with performance outcomes alone was not. Beyond seven years a near reversal of those phenomena was found; while satisfaction with membership-performance outcomes became less consistent in predictive power (significant for some year groups but not for others), performance satisfaction became a significant and moderately powerful predictor for all year groups.

H1 Organization membership satisfaction and job performance satisfaction are separate and distinguishable phenomena that characterize work environments.

Two secondary hypotheses were established to assist in testing H1. Results of data analysis pertinent to these secondary hypotheses is followed by a discussion of implications for H1.

H1a Responses to individual membership and performance association questions are not highly correlated.

Pearson product-moment correlations between both association questions for each facet are presented in Table V. Interpretation of the correlation coefficients followed this somewhat arbitrary algorithm:

<u>Correlation Coefficient</u>	<u>Interpretation</u>
$r < .2$	Infer Weak Dependence
$.2 \leq r < .4$	Infer Moderate Dependence
$.4 \leq r$	Infer Strong Dependence

The correlation between association questions was not significantly different from zero at the .05 level for nine of the facets, so no dependence was demonstrated. Another seven facets fell in the category of being weakly dependent and for only four facets could the associations be identified as either moderately or strongly dependent. The associations of individual work environment characteristics with performance and/or membership are not highly correlated except for Air Force

Table V
Correlation of Membership and Performance Associations*

<u>Facet</u>	<u>Correlation</u>	<u>Significance</u>	<u>n</u>
Social Service	.178	.003	237
Creativity	.131	.026	223
Moral Values	.321**	.001	97
Independence	.053	.222	210
Variety	.113	.051	210
Authority	.089	.086	236
Ability Utilization	.137	.019	231
Social Status	.148	.018	203
Air Force Policy and Procedures	.525***	.001	258
Supervisor- Human Relations	.133	.019	245
Security	.001	.494	263
Compensation	-.180	.002	263
Working Conditions	.519***	.001	262
Advancement	-.029	.339	206
Supervision- Technical	-.066	.166	217
Co-workers	.237**	.001	252
Responsibility	.071	.142	229
Recognition	.018	.392	230
Achievement	.003	.484	222
Activity	.176	.004	221

* Pairwise deletion of mission data.

** Moderate dependence.

***Strong dependence.

Policy and Practices and Working Conditions. The pervasive nature of these two characteristics may be the reason for the strong dependence--the respondents generally associated them with both membership and performance equally.

H1b Certain work environment characteristics are associated with membership alone, others with performance alone, and still others with both membership and performance.

The reported associations are presented in Table VI. Three phenomena displayed in this table will be addressed; the low number of facets (one) associated with membership only, the high number of facets (nine) associated positively with both membership and performance, and the responses which associated facets negatively with both performance and membership.

Except for compensation (pay) there was no clear association of facets with membership alone (Air Force policy and working conditions were also expected). The current national economic climate coupled with a pay increase ceiling that prevents salaries from keeping pace with inflation may be a primary cause of this reported association. This result indicates that the population does not clearly associate work environment outcomes, other than pay, with simply being a member of the organization. Of the nine facets expected to be associated positively with both membership and performance, four appeared in that category. Social service, variety, supervision-human relations, and co-workers (expected) were joined by ability utilization, moral values, Air Force policy, working conditions, and supervision-technical (not

Table VI
Distribution of Facet Associations

	Facet Identified With Performance Only M < 4	P > 4	Facet Identified With Membership Only M > 4	P < 4	Facet Identified With Both Performance and Membership M > 4	P > 4	Neutral M = 3	P = 3	Negative M < 2	P < 2	Number of Cases
Social Service	67		15		*145		5		8		240
Creativity	*107		3		98		10		16		234
Moral Values	24		12		*44		3		20		103
Independence	*98		11		83		11		10		213
Variety	73		7		*123		5		6		214
Authority	115		2		116		2		4		242
Ability Utilization	92		5		*121		9		8		235
Social Status	*92		10		82		14		10		208
Air Force Policy	22		10		*208		14		11		265
Supervision-Human Relations	71		17		*141		12		3		244
Security	*137		21		40		28		23		249
Compensation	8		*166		11		19		44		248
Working Conditions	51		6		*173		21		13		264
Advancement	*97		13		70		10		12		202
Supervision-Technical	82		16		*99		15		8		220
Co-workers	65		4		*176		4		5		254
Responsibility	*122		5		98		2		11		238
Recognition	*130		6		76		12		8		232
Achievement	*139		3		73		2		8		225
Activity	*119		10		80		11		6		226

*Indicates largest number of cases reported this association for the facet.

Table VII
Facets Associated with Both Membership and Performance

	Membership and Performance Association Stronger P=5 M=4	Performance Associations Equal P=M	Membership Association P=4 M=5	Stronger •Total
Social Service	24	115	6	145
Creativity	16	80	2	98
Moral Values	1	42	1	44
Independence	10	71	2	83
Variety	21	96	6	123
Authority	19	94	3	116
Ability Utilization	27	91	3	121
Social Status	16	65	1	82
Air Force Policy	14	188	6	208
Supervision-Human Relations	24	113	4	141
Security	10	29	1	40
Compensation	0	10	1	11
Working Conditions	15	155	3	173
Advancement	14	51	5	70
Supervision-Technical	10	89	0	99
Co-workers	24	148	4	176
Responsibility	28	68	2	98
Recognition	18	57	1	76
Achievement	25	48	0	73
Activity	17	63	0	80

*from Table VI

expected). Authority was categorized about equally as a performance outcome (115 respondents) and a membership-performance outcome (116 respondents).

Five of the eight facets expected to be performance outcomes were so identified. Creativity, independence, advancement, responsibility, and achievement (all expected) joined social status, security, recognition, and activity (all unexpected) to complete the list of work environment characteristics primarily associated with performance alone.

Without regard for the satisfaction levels associated with individual facets, it appears that the two types of associations of work outcomes are associations of outcomes with performance alone and associations of outcomes with both membership and performance. The latter class was inspected further to determine if all or most of the respondents might have reported a stronger association with performance than with membership or vice versa. Table VII displays the results of that analysis. Equal associations with both membership and performance ($P = 5$ and $M = 5$ or $P = 4$ and $M = 4$) predominate for every facet.

The neutral column of Table VI is believed to register uncertainty. Respondents neither agreed nor disagreed that the facet was associated with performance or membership. The data in this category was not used in further analysis.

The negative column records the number of respondents who reported the presence of the facet but disagreed or strongly disagreed with a statement that associated the facet with either membership or performance ($M \leq 2$ and $P \leq 2$). It is believed that these figures represent responses from those who possibly should have answered that the work environment provided no opportunities to experience that outcome.

The distribution of the number of facets in each of the three primary association categories is presented in Table VIII, and the distribution of average scores by association category is found in Table IX.

Discussion of H1 Analysis Results

The low average number of facets associated with membership constitutes evidence that tends to not support H1. Satisfaction scores for pay should not be generalized to become satisfaction scores for membership. It may be that more facets would have yielded some support for H1. However, the division of associations between performance and a combination of membership and performance tends to confirm one idea implicit to H1--people impute a level of satisfaction to characteristics of the work environment other than those associated with performance.

The number of insignificant and weak correlations between membership and performance association responses (Table V) tends to support the validity of the instrument. Respondents apparently did not generally answer the association questions by reflecting upon the level of satisfaction or some other variable that would effect the association responses equally. They differentiated between outcomes associated with performance, outcomes associated with membership, and outcomes associated with both membership and performance. The emergence of the category of facets associated with both membership and performance, coupled with the virtual disappearance of the category of facets associated with membership has led to a substitution of PMPSAVG (average satisfaction with outcomes associated with both membership and performance) for MEMSAVG (average satisfaction with outcomes associated with membership only) in most subsequent analyses.

Table VIII
Distribution of Facet Counts by Membership-Performance
Association Category

Distribution of Average Numbers	Facet Association Category		
	Performance Alone	Membership Alone	Both Membership and Performance
y	6.41	1.28	7.70
S	4.28	1.30	4.62
S ²	18.30	1.68	21.38
range	0-18	0-8	0-19

Table IX
Distribution of Average Scores by
Membership-Performance Association Category

<u>Average Score</u>	<u>Performance Alone</u>	<u>Membership Alone</u>	<u>Both Performance and Membership</u>
y	14.99	9.20	15.28
S	5.60	6.81	4.47
S ²	31.39	46.38	20.00
range	0-24.5	0-25	0-24.4

H2 Organization membership satisfaction and job performance satisfaction are two primary determinants of overall job satisfaction.

Tables X and XI display the results of two multiple stepwise regression models built to compare the predictive power of performance and membership satisfactions with the predictive power of the 20 MSQ facet scores. The standardized beta weight of a predictor variable was considered to be statistically different from zero (and therefore significant to the model) at the .05 significance level.

A regression model was built with the 20 MSQ facet satisfaction scores and the three membership/performance average scores all in competition with each other. The results are contained in Table XII. None of the satisfactions associated with membership or performance were significant to the model's predictive power, although PMPSAVG came close with a .089 significance level.

Discussion of H2 Analysis Results

Satisfactions with outcomes associated with performance only and satisfaction with outcomes associated with both membership and performance are able to explain 34 percent of the variance in overall job satisfaction for the sample population. The predictive power of these two variables is about one half that of the MSQ facets of ability utilization, achievement, supervision-human relations and social status. (Taken alone, ability utilization predicts .58 of the variance in overall job satisfaction.) Although satisfaction with performance outcomes and satisfaction with outcomes associated with both performance and

Table X

Regression Results: Hoppock Score with 20 MSQ Facets

PREDICTOR VARIABLE CANDIDATES:

SOC SERV	AUTHORIT	SECURITY	COWORKRS
CREATIVE	ABILUTIL	PAY	RESPON
MORALVAL	SOCSTAT	WORKCOND	RECOG
INDEPEN	AFPOLICY	ADVANCE	ACHIEVE
VARIETY	SUPHR	SUPTECH	ACTIVITY

Results

Adjusted R²: .635 F: 109.18 Significance: .000

<u>Significant Predictors</u>	<u>Variance Explained</u>	<u>B</u>	<u>Significance</u>
ABILUTIL	.585	.45	0
ACHIEVE	.033	.22	.005
SUPHR	.013	.12	.006
SOCSTAT	.011	.14	.007

B = Standardized Beta Weight

Table XI

Regression Results: Hoppock Score with Average
Performance/Membership Scores

PREDICTOR VARIABLE CANDIDATES

PMSAVG
PMPSAVG
MEMSAVG

Results

Adjusted R²: .330 F: 43.07 Significance: 0

<u>Significant Predictors</u>	<u>Variance Explained</u>	<u>B</u>	<u>Significance</u>
PMPSAVG	.28	.47	0
PMSAVG	.052	.25	.057

B = Standard Beta Weights

Table XII
Regression Results: Hoppock Score with 20 MSQ Facets
and Average Performance/Membership Scores

<u>Results</u>			
Adjusted R ² : .635		F: 74.80	Significance: .000
<u>Significant Predictors</u>	<u>Variance Explained</u>	<u>B</u>	<u>Significance</u>
ABILUTIL	.585	.45	0
ACHIEVE	.033	.22	.005
SUPHR	.012	.12	.006
SOCSTAT	.011	.14	.007
*PMPSAVG	.004	-.10	.089

*Not significant at the .05 level.

B = Standardized Beta Weight

membership might be considered global measures of satisfaction in those two categories, they are not powerful in predicting overall job satisfaction. These results do not constitute evidence to support hypothesis two.

H3 There exists some ratio of membership satisfaction to performance satisfaction for which overall job satisfaction is maximized.

The t-tests on the ratio MEMSAVG : PMSAVG were inconclusive due to the low number of facets associated with membership alone. Using the same three groups of cases (Hoppock score: low = 9-14, medium = 15-23, high = 24-28), t-tests were conducted on the ratio PMPSAVG : PMSAVG. The t statistic for unequal population variances was used ($\alpha = .05$):

$$t = \frac{(\bar{X}_1 - \bar{X}_2) - (\mu_1 - \mu_2)}{S_1^2/n_1 + S_2^2/n_2}$$

$$\text{degrees of freedom} = \frac{[(S_1^2/n_1) + (S_2^2/n_2)]^2}{[(S_1^2/n_1)^2/(n_1-1)] + [(S_2^2/n_2)^2/(n_2-1)]}$$

(Nie, et al, 1975:272)

Results are presented in Table XIII.

Discussion of H3 Analysis Results

The t-tests provide no support for H3. In each test, results failed to reject the null hypothesis. The ratio of satisfaction scores apparently does not differ between groups. One parenthetical comment is offered--averaged scores contain less variability than raw scores. The ratios formed from those averages may not vary enough to be significantly different except for very diverse populations.

Table XIII
T-tests of the Ratio PMPSAVG/PMSAVG Between
Hoppock Score Groups

<u>Groups</u>	<u>Mean Ratio</u>	<u>Standard Deviation</u>	<u>n</u>
Low	$\mu_l = .830$	.375	35
Medium	$\mu_m = .901$	.333	188
High	$\mu_h = .844$	.295	38

T-test Results:

<u>Hypotheses</u>	<u>t</u>	<u>d.f.</u>	<u>Significance</u>	<u>Conclusion</u>
1. $H_o: \mu_l = \mu_m$ $H_a: \mu_l \neq \mu_m$	1.04	221	.259	fail to reject null
2. $H_o: \mu_m = \mu_h$ $H_a: \mu_m \neq \mu_h$	.13	102	.328	fail to reject null
3. $H_o: \mu_l = \mu_h$ $H_a: \mu_l \neq \mu_h$	1.07	193	.861	fail to reject null

H4 During early career stages, organization membership satisfaction is more strongly associated with overall job satisfaction than is job performance satisfaction.

H5 During later career stages, job performance satisfaction is more closely associated with overall job satisfaction than is organization membership satisfaction.

Table XIV presents the Pearson product-moment correlations computed for the analysis of H4 and H5. The last column, the 17-19 year group, contained eight captains and nine majors. Consideration was given to the possibility that the captains might be formerly enlisted personnel who expect to retire before being considered for promotion to major. The subscripted column contains the results of analysis using only majors in that year group.

Results of multivariate data analysis in the form of multiple stepwise regression equations is presented in Table XV. Again, an adjustment was made to the 17-19 years of service group.

Discussion of H4 and H5 Analysis Results

Although no trend was detected in MEMSAVG relationships with overall job satisfaction, trends are clearly evident in the zero order correlations of Hoppock scores with PMSAVG and PMPSAVG (Table XIV). Until the end of six years of service, the correlation of PMSAVG with Hoppock is not statistically different from zero at the .05 significance level. After seven years have been completed, this variable

Table XIV
Correlations of Membership-Performance Average Scores
With Hoppock Score By Year Group

Predictor Variable	3	4	5	6	7	8-10	11-13	14-16	17-19	17-19a
PMSAVG										
r	.944	.134	.246	.086	•.840	.380	.592	.726	-.024	.854
n	3	28	33	34	30	34	61	21	17	9
s	.107	.249	.084	.314	.001	.013	.001	.001	.463	.002
MEMSAVG										
r	-.852	-.214	.171	-.243	.095	.131	.193	-.257	-.153	.043
n	3	28	33	34	30	34	61	21	17	9
s	.175	.137	.171	.083	.309	.229	.063	.130	.279	.457
PMPSAVG										
r	.790	.683	.686	.472	•.619	.426	.598	.662	.498	.514
n	3	28	33	34	30	34	61	21	17	9
s	.210	.001	.001	.002	.001	.006	.001	.001	.021	.079

r = Pearson product-moment correlation coefficient

n = number in year group

s = significance level (<.05 considered significant)

a: figures computed for majors only

*Found statistically different using Hotelling's t-test, Appendix E.

Table XV
Regression Results: Hoppock Score with Membership-Performance
Average Scores by Year Group

Predictor Variable	Total Years in Air Force									
	3	4	5	6	7	8-10	11-13	14-16	17-19	17-19a
PMSAVG										
B	.944	.255	*	.027	.808	.313	.378	.579	.107	.773
s	.215	.104	*	.865	.000	.055	.001	.038	.676	.015
R ²	.89	.053	*	.001	.706	.100	.123	.527	.010	.729
n	3	28	33	34	30	34	61	21	17	9
MEMSAVG										
B	*	-.286	-.059	-.184	-.129	.073	.117	-.203	-.134	.1866
s	*	.070	.679	.257	.242	.642	.226	.219	.598	.398
R ²	*	.032	.003	.033	.013	.005	.013	.049	.011	.033
n	3	28	33	34	30	34	61	21	17	9
PMPSAVG										
B	*	.667	.705	.444	.092	.370	.412	.173	.505	.272
s	*	.000	.000	.009	.535	.025	.000	.513	.057	.264
R ²	*	.466	.470	.223	.004	.181	.357	.011	.248	.045
n	3	28	33	34	30	34	61	21	17	9

B = standardized beta weight

s = significance level

R² = percent of variance in Hoppock score explained by predictor variable

*Did not enter equation

n number in year group

a figures computed for majors only

does correlate with Hoppock and the correlation strengths are generally higher than or comparable to those of PMPSAVG with Hoppock.

The regression analysis (Table XV) amplifies the findings of the correlation figures. PMSAVG is not a significant predictor in any model until the subjects reach the seven year point; then it is significant in all models.

Satisfaction with facets associated with both membership and performance (PMPSAVG) is consistently correlated with Hoppock in Table XIV. No trend was detected in either significance levels or correlation strengths. Significance levels in the regression models (Table XV) did vary. The 7, 14-16, and 17-19 year groups indicate that PMPSAVG is not significant to the models' predictive power.

As written, H4 is not supported by the results because MEMSAVG did not display a significant relationship with overall job satisfaction. However, PMPSAVG (satisfaction with facets associated with both membership and performance) demonstrates a stronger relationship with overall job satisfaction during earlier years than PMSAVG does (satisfaction with facets associated with performance alone).

H5, using the same concept of membership satisfaction as H4, also cannot be accepted. Examining the data for PMPSAVG and PMSAVG, rather than for MEMSAVG and PMSAVG, reveals support for the postulate that the strength of the relationship between satisfaction with facets not associated with performance alone (PMPSAVG) probably wanes as years of service in the Air Force increase. For year groups with less than seven years of service, PMPSAVG is consistently a moderate predictor of job

satisfaction. After seven years of service, PMPSAVG is not so consistent as a predictor, and the percent of variance explained by PMSAVG is generally lower when it does enter the model.

H6 During the competitive career (while workers perceive a reasonable opportunity for promotion), workers at higher echelons value performance outcomes more highly than do workers at lower echelons.

Zero order correlations between Hoppock and the three satisfaction variables for each organizational grouping of cases are presented in Table XVI. Results from linear regression analysis are displayed in Table XVII. Both PMSAVG and PMPSAVG correlate more strongly with Hoppock for workers at higher echelons (Table XVI), so no specific information pertinent to H6 can be derived. The predictive power of PMSAVG seems to fall from group one to group two (5.5% variance explained in group one, 3.4% variance explained in group two) even though the correlation between PMSAVG and Hoppock rises from .325 in group one to .572 in group 2. This apparent inconsistency may be due to the changing correlation between the predictors themselves. In group one the correlation coefficient between PMSAVG and PMPSAVG is .256 while in group two it is .507. The two variables are probably explaining more of the same variance in Hoppock.

Discussion of H6 Analysis Results

The evidence does not tend to support H6. Satisfaction with outcomes associated with performance only is more highly correlated with overall job satisfaction, but so is satisfaction with outcomes associated with both membership and performance. Workers at higher echelons may

Table XVI

Correlations Between Membership-Performance Average
Scores and Hoppock Score for Lower and Higher Echelon Groups

	Group 1	Group 2
Variable	Squadron and Wing	MAJCOM, Air Staff JCS/National Agencies DOD
PMSAVG		
r	.3254*	.5719*
n	180	49
s	.001	.001
MEMSAVG		
r	.0002	-.0269
n	180	49
s	.499	.427
PMPSAVG		
r	.4669*	.7154*
n	180	49
s	.001	.001

r = Pearson product-moment correlation coefficient

n = number in group

s = significance level of correlation

R² = variance explained

*Differences between group correlation coefficients are significant at the .05 significance level. Test statistic presented in Appendix E.

Table XVII

Regression Results for Lower and Higher Echelon Groups

	Group 1	Group 2
	Squadron	MAJCOM, Air Staff,
Variable	and Wing	JCS/National Agencies,
		DOD
PMSAVG		
B	.254	.248
s	.000	.055
R ²	.055	.034
n	180	50
MEMSAVG		
B	-.080	-.084
s	.222	.414
R ²	.006	.007
n	180	50
PMPSAVG		
B	.421	.571
s	.000	.000
R ²	.218	.512
n	180	50
Hoppock Score		
mean	19.361	19.898
standard deviation	4.183	3.842

B = standardized beta weight

s = significance level of F

n = number in group

R² = variance explained

have developed keener sensitivities to the total work environment experience--but they do not appear to have increased the value of performance satisfactions any more than they have increased the value of satisfactions associated with membership and performance.

Summary

Four clear results emerged from analysis:

(1) Respondents' association of work environment outcomes with membership were not strongly correlated with their association of outcomes with performance--respondents were able to differentiate between the two types of associations.

(2) Work environment characteristics fell into two association classes: outcomes associated with performance alone and outcomes associated with both membership and performance. Most respondents associated only one outcome with membership alone.

(3) Before completing seven years of service, officers did not report a significant correlation between satisfaction with performance associated outcomes and overall job satisfaction. After seven years of service, performance satisfaction and overall job satisfaction were strongly correlated.

(4) Satisfaction with outcomes associated with both membership and performance was more consistently correlated with overall job satisfaction for respondents with less than seven years of service than for the remainder of the sample population.

Performance related outcomes and outcomes associated with both performance and membership were found to be statistically significant predictors of overall job satisfaction for the entire sample. However,

individual facet satisfaction scores, particularly satisfaction with ability utilization, were more powerful in predicting overall job satisfaction.

No support was found for the hypothesis that different ratios of membership to performance satisfactions generally accompany higher or lower levels of overall job satisfaction. Although workers at higher organization levels reported stronger correlations between performance satisfaction and overall job satisfaction than workers at lower levels, the same was true for the relationship between satisfaction associated with both membership and performance and the overall job satisfaction score.

V. Summary, Conclusions, and Recommendations

Research into the existence and influences of organization membership satisfaction and job performance satisfaction was based on a complex, rather than simplistic, model of human nature--the nature of people is such that rewards from performance alone may constitute only a part of the experiences which determine the level of overall job satisfaction. The work situation is a multivariate environment in which people with complex natures exist, and interactions between various elements of the work environment, the workers, and other forces which act upon the workers lead to a general level of satisfaction with the job.

The results of empirical research by R. Katz and others suggest that job satisfaction and job design should be studied in the context of the social environment in which jobs are found. The influence of the social environment and group norms on individuals within those groups is pervasive and strong. Thus groupings by age and organization level might be expected to exhibit similarities with respect to those environmental variables that correlate with overall job satisfaction.

The concept of autonomy by default was proposed by Fred Katz--workers know that certain categories of behaviors are allowed so long as they do not interfere with the achievement of organization objectives (F. Katz, 206). Autonomy by default and other work environment characteristics may be closely associated with overall job satisfaction yet

not be associated with performance of duties. Part of this research involved recording the association of specific work environment characteristics with performance of duties and with other aspects of being a member of the organization.

A data collection vehicle, the Membership-Performance Questionnaire, was designed to collect data via self-report from students in two Air Force professional schools, Squadron Officers School and the Air Command and Staff College (N = 267). The questionnaire recorded individuals' satisfaction with twenty facets of the work environment using the Minnesota Satisfaction Questionnaire, overall job satisfaction using the Hoppock measure, and the degree to which respondents associated each facet with performance of duties or other aspects of being a member of the organization.

Two categories of associations emerged, performance associated outcomes and outcomes associated with both membership and performance. Only compensation (pay) was associated primarily with other aspects of being a member.

The hypothesis that membership satisfaction and performance satisfaction exist was not supported. However, the data suggest the existence of a related phenomenon: people can experience satisfaction with work outcomes that are associated with performance alone separate from the satisfaction that they experience with outcomes associated with both membership and performance.

The relationships between each of these two outcome categories and overall job satisfaction (Hoppock score) was investigated using analysis groups formed by longevity in the Air Force and organization

level. Officers with less than seven years of service reported a significant positive relationship between overall job satisfaction and the average level of satisfaction they experienced from outcomes associated with both membership and performance, while the average satisfaction with performance outcomes demonstrated no significant correlation with the Hoppock score. Officers with seven years or more service recorded a strong positive relationship between job performance satisfaction and Hoppock scores. This relationship was consistently significant across year groups, but the relationship between membership-performance satisfaction and overall job satisfaction was not. Thus it appears that, for the population sampled, job performance satisfaction is not generally related to overall satisfaction for those with less than seven years of service but significantly related to overall satisfaction at and beyond the seven year point. One explanation offered for this phenomenon is the existence of the 11-12 year promotion point for majors--at seven years and beyond officers may be preparing for the promotion board review by seeking outstanding effectiveness reports.

Two organization level groups were established: squadron and wing level, Major Air Command, Air Staff, Joint Chiefs of Staff, Department of Defense, and other national agencies. These groups did not appear to differ in their relationships either between overall satisfaction and job performance satisfaction or in the relationship between overall satisfaction and satisfaction with outcomes associated with both membership and performance.

Implications for the Dasgip model of work motivation are shown in Figure 6. Organization membership satisfaction, an independent entity in Figure 3, has been replaced with membership-performance satisfaction to reflect the associations reported by MSQ respondents. The dotted lines represent relationships that vary with (at least) tenure.

Managers interested in overall job satisfaction might gain insight into effects of specific work environments through understanding which outcomes workers associate with performance only, which outcomes they associate with both membership and performance, and the relationships between the two respective satisfaction levels and overall job satisfaction.

Recommendations

Further investigation of the concept of membership-performance satisfaction might benefit from decreasing the length of the questionnaire by eliminating section I and reducing section II to the short form of the Minnesota Satisfaction Questionnaire (20 questions). Consideration should be given to utilizing other validated questionnaires in order to measure associations of more and different facets of the work environment. It is conceivable that using an instrument with a more comprehensive inventory of facets (Tuttle used 35; Tuttle, 1975: 33-34) might provide a category of facets generally associated with membership alone. The existence of a group of facets associated with membership alone should continue to be explored.

The sample chosen for additional research should be drawn from one organization or unit with respondents ranging from newcomers to near-retirees, in all possible grades. A sample from such a population would

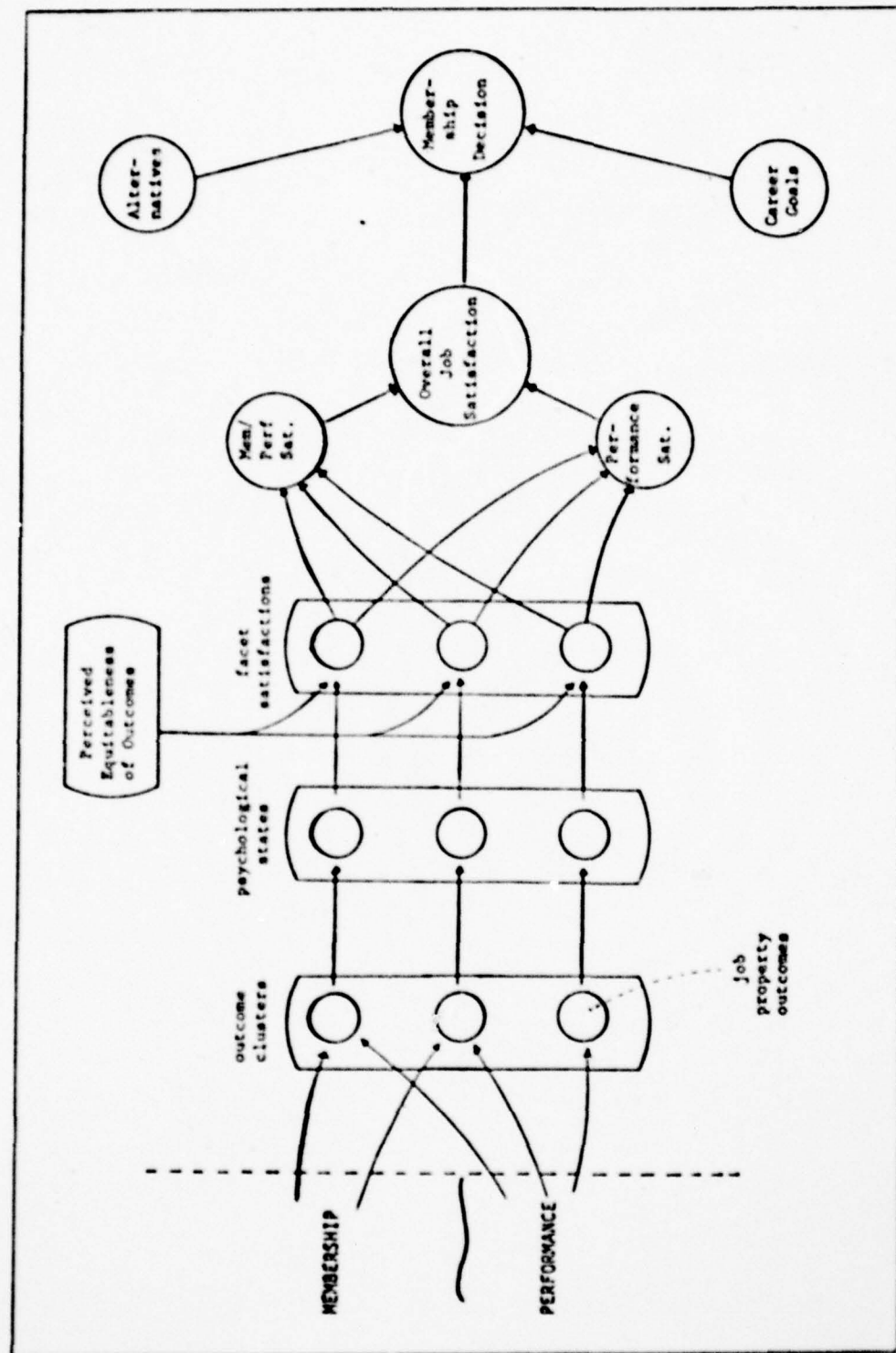


Figure 6
Proposed Change to the Dasplit Model

provide the heterogeneity not found in SOS or ACSC, although generalizations from the population might be difficult to make.

Managers might benefit directly from research conducted within their organization to determine which aspects of the work environment workers associate only with performance and which aspects are considered to be associated with membership or some combination of both membership and performance. This type of research might effectively counter the problem cited by Daniel Katz:

Management will often overlook the distinction between individual and system rewards and will operate as if rewards administered across the board were the same in their effect as individual awards.

(Steers and Porter, 1975:267)

Bibliography

1. Argyris, Chris. "Personality and Organization Theory Revisited," Administrative Science Quarterly, 18:141-167 (1973).
2. Blackler, Frank and Brown, Colin. "Organizational Psychology: Good Intentions and False Promises," Human Relations, 31:4, 333-351 (1978).
3. Brousseau, Kenneth R. Effects of Job Experience on Personality. Yale University: Tech Report No. 14, January 1977 (ADA036993).
4. Buchanan, Bruce II. "Building Organizational Commitment: The Socialization of Managers in Work Organizations," Administrative Science Quarterly, 533-545.
5. Cohen, Claude, et al. SPSS Regression Reference. Evanston, Illinois: Northwestern University, December 1976.
6. Daspit, Paul F. An Integration of Contemporary Theories of Work Motivation: A Proposed Model and Partial Test with Implications for Job Design. MS Thesis, Wright-Patterson AFB, Ohio: Air Force Institute of Technology, September 1978.
7. Guilford, J. P. and Fruchter, B. Fundamental Statistics in Psychology and Education, 5th edition. New York: McGraw-Hill, 1973.
8. Hackman, J. Richard and Oldham, Greg R. The Job Diagnostic Survey: The Diagnosis of Jobs and the Evaluation of Job Redesign Projects. Tech Report No. 4, Yale University, May 1974 (AD779828).
9. Hall, Douglas T. and Mansfield, Roger. "Relationships of Age and Seniority with Career Variables of Engineers and Scientists," Journal of Applied Psychology, 60, No. 2, 201-210, 1975.
10. Katz, Fred E. "Explaining Informal Work Groups in Complex Organizations: The Case for Autonomy in Structure," Administrative Science Quarterly, 10:204-223.
11. Katz, Ralph and VanMaanen, John. "The Loci of Work Satisfaction: Job Interaction and Policy," Human Relations, 30, No. 5, 469-489, 1977.
12. Katz, Ralph. "The Influence of Job Longevity on Employee Reactions to Task Characteristics," Human Relations, 31, No. 8, 703-725, 1978.
13. Klein, Josephine. The Study of Groups. London: Routledge and Kegan Paul Ltd., 1956.

14. McNichols, Charles W. An Introduction to Applied Multivariate Data Analysis (Draft Course Notes). School of Engineering, Air Force Institute of Technology, Wright-Patterson AFB, Ohio.
15. McNichols, Charles W., Lt Col (PhD), Associate Professor of Operations Research. Personal Discussion, June 1979.
16. McNichols, Charles W., Stahl, Michael J., and Manley, Roger T. "A Validation of Hoppock's Job Satisfaction Measure," Academy of Management Journal, 738-742, December 1978.
17. Mitchell, Terrence R. "Applied Principles in Motivation Theory," Personal Goals and Work Design, edited by Peter Warr. London: John Wiley and Sons, Inc., 1976.
18. Nie, Norman H., et al. Statistical Package for the Social Sciences. New York: McGraw-Hill, 1975.
19. Nord, Walter R. "Job Satisfaction Reconsidered," American Psychologist, 1025-1035, December 1977.
20. Porter, Lyman W., Lawler, Edward E. III, and Hackman, J. Richard. Behavior in Organizations. New York: McGraw-Hill, 1975.
21. Porter, Lyman W., Crampon, William J., and Smith, Frank J. "Organizational Commitment and Managerial Turnover: A Longitudinal Study," Organizational Behavior and Human Performance, 15:87-98 (1976).
22. Roy, Donald F. "'Banana Time', Job Satisfaction and Informal Interaction," Human Organization, 18:158-168 (1960).
23. Schein, Edgar H. "The Individual, the Organization, and the Career: A Conceptual Scheme," Journal of Applied Behavioral Science, 7:401-426 (1971).
24. Schneider, Benjamin. Conceptualizing Organizational Climate. Tech Report No. 7, University of Maryland, May 1974 (AD 783064).
25. Snedecor, George W. and Cochran, William G. Statistical Methods. Ames, Iowa: Iowa State University Press, sixth edition, 1967.
26. Steers, Richard M. and Porter, Lyman W. Motivation and Work Behavior. New York: McGraw-Hill, 1975.
27. Talbot, Terry R. Job Satisfaction: Literature Review and Empirical Test of a Facet Satisfaction Model. MS Thesis, Wright-Patterson AFB, Ohio: Air Force Institute of Technology, September 1979.
28. Tuttle, Thomas C., et al. Dimensions of Job Satisfaction: Initial Development of the Air Force Occupational Attitude Inventory. Brooks AFB, Texas, Air Force Human Resource Laboratory, June 1975 (ADA014790).

29. Weiss, David J., Dawis, Rene V., England, George W., and Lofquist, Lloyd H. Manual for the Minnesota Satisfaction Questionnaire. University of Minnesota, Industrial Relations Center, 1967.
30. Williams, J. Clifton. Human Behavior in Organizations. Cincinnati: Southwestern Publishing Co., 1978.

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Vita

Wesley B. Dixon, born September 3, 1943, grew up in the foothills of the Cascade Mountains in Battle Ground, Washington, and graduated from the Air Force Academy in 1965 with a B.S. in Political Science. Intelligence training at Lowry AFB, Colorado, preceded assignments to intelligence positions in the Washington D.C. area and Saigon, Vietnam. A career broadening assignment to Ellsworth AFB, South Dakota, led to additional intelligence training at the Defense Intelligence School in Washington D.C. and an assignment to the Intelligence Deputate of the Tactical Air Command at Langley AFB, Virginia. Major Dixon entered the Air Force Institute of Technology in May, 1978, as a graduate student in Systems Management.

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Appendix A
Membership-Performance Questionnaire

MEMBERSHIP-PERFORMANCE QUESTIONNAIRE

EXPECTED COMPLETION TIME: 20 MINUTES

Purpose of the Study

The Air Force Institute of Technology is conducting a scientific study of the relationships between job performance satisfaction, organization membership satisfaction, and overall job satisfaction. This research will be used to analyze a model of the sources of job satisfaction, with a long range goal of improving the design of work environments.

You have been selected as part of a sample of Air University students. Any answers you provide will be strictly confidential and seen only by Air Force Institute of Technology researchers. No individual information will be given to anyone outside the research team. The results of this research will be presented in two master's theses.

Select one answer to each question, then mark your answer on the separate answer sheet. Please use a No. 2 pencil.

Be sure to mark your answers carefully so that you place them beside the same answer sheet number as survey question number.

Be sure that your answer marks are heavy and that you blacken the entire space.

SOS Students: Please return answer sheets to the wing secretary by 1100 hours, Wednesday, 23 May 1979.

ACSC Students: Please return answer sheets to the evaluation box in the central hall by 1100 hours, Wednesday 23 May 1979.

Privacy Statement

In accordance with paragraph 30, AFR 12-35, Air Force Privacy Program, the following information about this survey is provided:

- a. Authority. 10 U.S.C., 8012, Secretary of the Air Force: Powers and Duties, Delegation by.
- b. Principal purpose. The survey is being conducted to collect opinions and behavioral information relating to current and future Air Force policies and programs.
- c. Routine use. The survey data will be converted to statistical information for use by Air Force Institute of Technology researchers.
- d. Participation in this survey is voluntary.
- e. No adverse action of any kind may be taken against any individual who elects not to participate in this survey.

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SCN 79-95

SECTION I

This section of the questionnaire is designed to measure the degree to which certain properties exist in your work environment. Please mark the letter on your answer sheet which indicates the extent that the property is present in your work environment. Answer each question as it pertains to the job you held longest at your duty station immediately prior to attending this school.

Example: A C-9 (Medivac) flight attendant might answer the following example question in this manner:

Ex. To what extent does your work situation provide you the opportunity to serve others?

A B C D **E**

Very little. My work situation does not allow me to help others.

Moderately. My work situation provides some opportunity to help others.

I continuously have chances to help/serve others.

1. To what extent does your work situation provide you the opportunity to serve others?

A B C D E

Very little. My work situation does not allow me to help others.

Moderately. My work situation provides some opportunity to help others.

I continuously have chances to help/serve others.

2. To what extent does your work environment allow you to be creative? That is, can you try out new and better ways to do the job?

A B C D E

Very little. I have little or no opportunity to try out my own ideas.

Moderately. Some aspects of my work situation allow me freedom to decide how things are done.

I have almost complete freedom to decide how things are done or to try out new ideas.

3. How often does your work environment require you to do things that go against your conscience?

A B C D E

My job never requires me to do things I feel are morally wrong.

Occasionally. I sometimes must do things that go against my conscience.

Very often. I am often required to do things I feel are morally wrong.

4. How much independence is there in your work environment? That is, to what extent can you do your work on your own?

A B C D E

Very little. In my work environment there is almost nothing I can do independent of others.

I work with others and independently of others about equally in my work environment.

In my work situation I almost always work independently of others.

5. How much variety is there in your work situation? That is, to what extent are you able to do many different things at work, using a variety of your skills and talents?

A B C D E

Very little. I do the same routine things over and over again.

Moderate variety.

Very much. I am able to do many different things, using a number of different skills and talents.

6. How much authority do you have in your work environment? To what extent do other workers look to you for direction?

A B C D E

Very little. The situation does not allow me to influence the activities of others.

I am able to influence some of the activities of others.

Very much. My work situation gives me almost complete authority over the activities of many others.

7. To what extent does your work situation make use of your abilities and skills?

A B C D E

Very little. I seldom have the chance to do things that are suited to my abilities and skills.

I sometimes have the chance to make use of my abilities and skills.

Very much. Most of the time I have the opportunity to do things that are well suited to my abilities and skills.

8. How much social status results from your work situation? That is, how much opportunity do you have to be important in the eyes of others?

A B C D E

Very little. My work situation provides almost no opportunity to be important in the eyes of others.

Moderate social status.

Very much. High social status is inherent in my work situation.

9. How much opportunity for advancement is there in your work environment?

A B C D E

Very little. Opportunity for advancement in my work situation does not exist.

Moderate. My chance for advancement is about average.

Very much. My environment provides a great deal of opportunity for upward mobility.

10. In your work situation, to what extent do managers or co-workers let you know how well you are doing?

A B C D E

Very little. People almost never let me know how well I am doing.

Moderately. Sometimes people may give me feedback; other times they may not.

Very much. Managers or co-workers provide me with almost constant feedback about how well I am doing.

11. To what extent does your work situation give you a feeling of accomplishment--that you completed something worthwhile?

A B C D E

I almost never receive a feeling of achievement from my work situation.

My work situation provides me moderate feelings of achievement.

I almost always associate feelings of achievement with my work situation.

12. To what extent does your work environment provide the opportunity to keep busy most of the time?

A B C D E

Very little. A large part of the time I have nothing to do.

Moderate. My activity and workload are about average.

Very much. I could keep busy all the time.

SECTION II

The purpose of this section is to measure how you feel about your job, what things you are satisfied with and what things you are not satisfied with. Answer each question as it pertains to the job you held longest at your duty station prior to attending this school. Decide how you feel about the aspect of your job described by the statement, and mark your answer sheet beginning in number 13. Answer:

- (a) if you are not satisfied (if that aspect is much poorer than you would like it to be);
- (b) if you are only slightly satisfied (if that aspect is not quite what you would like it to be);
- (c) if you are satisfied (if that aspect is what you would like it to be);
- (d) if you are very satisfied (if that aspect is even better than you expected it to be);
- (e) if you are extremely satisfied (if that aspect is much better than you hoped it could be).

Do not turn back to previous statements.

On my job, this is how I feel about . . .

- 13. The chance to be of service to others A B C D E
- 14. The chance to try out some of my own ideas A B C D E
- 15. Being able to do the job without feeling it is
morally wrong A B C D E
- 16. The chance to work by myself A B C D E
- 17. The variety in my work A B C D E
- 18. The chance to have other workers look to me for
direction A B C D E
- 19. The chance to do the kind of work I do best A B C D E
- 20. The social position in the community that goes with
the job A B C D E
- 21. The policies and practices of the Air Force toward
its members A B C D E
- 22. The way my supervisor and I understand each other A B C D E
- 23. My job security A B C D E

Ask yourself: How satisfied am I with this aspect of my job?

- (a) means I am not satisfied (this aspect of my job is much poorer than I would like it to be);
- (b) means I am only slightly satisfied (this aspect of my job is not quite what I would like it to be);
- (c) means I am satisfied (this aspect of my job is what I would like it to be);
- (d) means I am very satisfied (this aspect of my job is even better than I expected it to be);
- (e) means I am extremely satisfied (this aspect of my job is much better than I hoped it could be).

On my job, this is how I feel about . . .

- 24. The amount of pay for the work I do A B C D E
- 25. The working conditions (heating, lighting, ventilation, etc.) on this job A B C D E
- 26. The opportunities for advancement on this job A B C D E
- 27. The technical "know-how" of my supervisor A B C D E
- 28. The spirit of cooperation among my co-workers A B C D E
- 29. The chance to be responsible for planning my work A B C D E
- 30. The way I am noticed when I do a good job A B C D E
- 31. Being able to see the results of the work I do A B C D E
- 32. The chance to be active much of the time A B C D E
- 33. The chance to be of service to people A B C D E
- 34. The chance to do new and original things on my own A B C D E
- 35. Being able to do things that don't go against my religious beliefs A B C D E
- 36. The chance to work alone on the job A B C D E
- 37. The chance to do different things from time to time A B C D E
- 38. The chance to tell other workers how to do things A B C D E
- 39. The chance to do work that is well suited to my abilities A B C D E
- 40. The chance to be "somebody" in the community A B C D E
- 41. Air Force policies and the way in which they are administered A B C D E

Ask yourself: How satisfied am I with this aspect of my job?

- (a) means I am not satisfied (this aspect of my job is much poorer than I would like it to be);
- (b) means I am only slightly satisfied (this aspect of my job is not quite what I would like it to be);
- (c) means I am satisfied (this aspect of my job is what I would like it to be);
- (d) means I am very satisfied (this aspect of my job is even better than I expected it to be);
- (e) means I am extremely satisfied (this aspect of my job is much better than I hoped it could be).

On my job, this is how I feel about . . .

- 42. The way my boss handles subordinates A B C D E
- 43. The way my job provides for a secure future A B C D E
- 44. The chance to make as much money as my friends A B C D E
- 45. The physical surroundings where I work A B C D E
- 46. The chances of getting ahead on this job A B C D E
- 47. The competence of my supervisor in making decisions A B C D E
- 48. The chance to develop close friendships with my
co-workers A B C D E
- 49. The chance to make decisions on my own A B C D E
- 50. The way I get full credit for the work I do A B C D E
- 51. Being able to take pride in a job well done A B C D E
- 52. Being able to do something much of the time A B C D E
- 53. The chance to help people A B C D E
- 54. The chance to try something different A B C D E
- 55. Being able to do things that don't go against my
conscience A B C D E
- 56. The chance to be alone on the job A B C D E
- 57. The routine in my work A B C D E
- 58. The chance to supervise other people A B C D E
- 59. The chance to make use of my best abilities A B C D E
- 60. The chance to "rub elbows" with important people A B C D E

Ask yourself: How satisfied am I with this aspect of my job?

- (a) means I am not satisfied (this aspect of my job is much poorer than I would like it to be);
- (b) means I am only slightly satisfied (this aspect of my job is not quite what I would like it to be);
- (c) means I am satisfied (this aspect of my job is what I would like it to be);
- (d) means I am very satisfied (this aspect of my job is even better than I expected it to be);
- (e) means I am extremely satisfied (this aspect of my job is much better than I hoped it could be).

On my job, this is how I feel about . . .

- 61. The way employees are informed about Air Force policies A B C D E
- 62. The way my boss backs up subordinates (with top management) A B C D E
- 63. The way my job provides for steady employment A B C D E
- 64. How my pay compares with that for comparable work in other organizations A B C D E
- 65. The pleasantness of the working conditions A B C D E
- 66. The way promotions are given out on this job A B C D E
- 67. The way my boss delegates work to others A B C D E
- 68. The friendliness of my co-workers A B C D E
- 69. The chance to be responsible for the work of others . . . A B C D E
- 70. The recognition I get for the work I do A B C D E
- 71. Being able to do something worthwhile A B C D E
- 72. Being able to stay busy A B C D E
- 73. The chance to do things for other people A B C D E
- 74. The chance to develop new and better ways to do the job . A B C D E
- 75. The chance to do things that don't harm other people . . A B C D E
- 76. The chance to work independently of others A B C D E
- 77. The chance to do something different every day A B C D E
- 78. The chance to tell people what to do A B C D E
- 79. The chance to do something that makes use of my abilities A B C D E

Ask yourself: How satisfied am I with this aspect of my job?

- (a) means I am not satisfied (this aspect of my job is much poorer than I would like it to be);
- (b) means I am only slightly satisfied (this aspect of my job is not quite what I would like it to be);
- (c) means I am satisfied (this aspect of my job is what I would like it to be);
- (d) means I am very satisfied (this aspect of my job is even better than I expected it to be);
- (e) means I am extremely satisfied (this aspect of my job is much better than I hoped it could be).

On my job, this is how I feel about . . .

- 80. The chance to be important in the eyes of others A B C D E
- 81. The way Air Force policies are put into practice A B C D E
- 82. The way my boss takes care of subordinates' complaints . . A B C D E
- 83. How steady my job is A B C D E
- 84. My pay and the amount of work I do A B C D E
- 85. The physical working conditions of the job A B C D E
- 86. The chances for advancement on this job A B C D E
- 87. The way my boss provides help on hard problems A B C D E
- 88. The way my co-workers are easy to make friends with . . . A B C D E
- 89. The freedom to use my own judgment A B C D E
- 90. The way they usually tell me when I do my job well . . . A B C D E
- 91. The chance to do my best at all times A B C D E
- 92. The chance to be "on the go" all the time A B C D E
- 93. The chance to be of some small service to other people . . A B C D E
- 94. The chance to try my own methods of doing the job A B C D E
- 95. The chance to do the job without feeling I am
cheating anyone A B C D E
- 96. The chance to work away from others A B C D E
- 97. The chance to do many different things on the job A B C D E
- 98. The chance to tell others what to do A B C D E
- 99. The chance to make use of my abilities and skills A B C D E

Ask yourself: How satisfied am I with this aspect of my job?

- (a) means I am not satisfied (this aspect of my job is much poorer than I would like it to be);
- (b) means I am only slightly satisfied (this aspect of my job is not quite what I would like it to be);
- (c) means I am satisfied (this aspect of my job is what I would like it to be);
- (d) means I am very satisfied (this aspect of my job is even better than I expected it to be);
- (e) means I am extremely satisfied (this aspect of my job is much better than I hoped it could be).

On my job, this is how I feel about . . .

- 100. The chance to have a definite place in the community . . . A B C D E
- 101. The way the company treats its employees A B C D E
- 102. The personal relationship between my boss and subordinates A B C D E
- 103. The way forced separations are avoided in my job A B C D E
- 104. How my pay compares with that of other workers A B C D E
- 105. The working conditions A B C D E
- 106. My chances for advancement A B C D E
- 107. The way my boss trains subordinates A B C D E
- 108. The way my co-workers get along with each other A B C D E
- 109. The responsibility of my job A B C D E
- 110. The praise I get for doing a good job A B C D E
- 111. The feeling of accomplishment I get from the job A B C D E
- 112. Being able to keep busy all the time A B C D E

SECTION III

The purpose of this section of the questionnaire is to determine if you associate the presence of certain work characteristics (advancement, recognition, responsibility, etc.) with either or both of two features of your work environment. The two features of the work environment are:

- (a) Your performance of duties (where performance is defined as activity directed toward accomplishing organization goals).
- (b) Other aspects of your being a member of the organization.

Answer each question as it pertains to the position you held longest at your duty station immediately prior to attending this school. If your work environment does not exhibit a particular characteristic, such as recognition, you will be asked to skip the questions which ask about that characteristic.

Example 1. A branch chief who directly supervises several people may respond to the following questions in this manner:

1. Does your work environment provide you opportunities to interact with co-workers?

☒ a. Yes
☐ b. No

If "No", please skip to question 4.

2. Opportunities to interact with co-workers occur when I am performing my duties.

A B C D ☒ E
Strongly Disagree Disagree Neither Agree Agree Strongly
Disagree Nor Disagree Agree Agree

3. Opportunities to interact with co-workers occur simply from being a member of the organization.

A B C ☒ D E
Strongly Disagree Disagree Neither Agree Agree Strongly
Disagree Nor Disagree Agree Agree

Example 2. A missile combat crew member who is not required to interact extensively with others while performing alert duties but frequently discusses the state of the world with other crewmembers might answer the same questions this way.

1. Does your work environment provide you opportunities to interact with co-workers?

☒ a. Yes
☐ b. No

If "No", please skip to question 4.

2. Opportunities to interact with co-workers occur when I am performing my duties.

A B C D E
Strongly Disagree Disagree Neither Agree Agree Strongly
Disagree Nor Disagree Agree Agree

3. Opportunities to interact with co-workers occur simply from being a member of the organization.

A B C D E
Strongly Disagree Disagree Neither Agree Agree Strongly
Disagree Nor Disagree Agree Agree

113. Do opportunities to help other people occur in your work environment?

- a. Yes
b. No

If "No", please skip to question 116.

114. Opportunities to help other people occur when I am performing my duties.

A B C D E
Strongly Disagree Disagree Neither Agree Agree Strongly
Disagree Nor Disagree Agree Agree

115. Opportunities to help other people occur simply from being a member of the organization.

A B C D E
Strongly Disagree Disagree Neither Agree Agree Strongly
Disagree Nor Disagree Agree Agree

116. Does your work environment offer you opportunities to try out some of your own ideas?

- a. Yes
b. No

If "No", please skip to question 119.

117. Opportunities to try out some of my own ideas occur when I performing my duties.

A B C D E
Strongly Disagree Disagree Neither Agree Agree Strongly
Disagree Nor Disagree Agree Agree

118. Opportunities to try out some of my own ideas occur simply from being a member of the organization.

A B C D E
Strongly Disagree Disagree Neither Agree Agree Strongly
Disagree Nor Disagree Agree Agree

119. Does your work environment require you to do things that go against your conscience?

- a. Yes
- b. No

If "No", please skip to question 122.

120. Requirements to do things that go against my conscience occur when I am performing my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

121. Requirements to do things that go against my conscience occur simply from being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

122. Does your work environment offer you opportunities to work independently of others?

- a. Yes
- b. No

If "No", please skip to question 125.

123. Opportunities to work independently of others occur when I am performing my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

PLEASE ENSURE YOU ARE MARKING ANSWERS FOR THE CORRECT QUESTION NUMBER ON THE ANSWER SHEET.

124. Opportunities to work independently of others occur simply from being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

125. Does your work environment offer you opportunities to do many different things?

- a. Yes
- b. No

If "No", please skip to question 128.

126. Opportunities to do many different things occur when I am performing my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

127. Opportunities to do many different things occur simply from being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

128. Does your work environment offer you opportunities to have others look to you for direction?

- a. Yes
- b. No

If "No", please skip to question 131.

129. Opportunities to have others look to me for direction occur when I am performing my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

130. Opportunities to have others look to me for direction occur simply from being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

131. Does your work environment offer you opportunities to use your abilities and skills?

- a. Yes
- b. No

If "No", please skip to question 134.

132. Opportunities to use my abilities and skills occur when I am performing my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

133. Opportunities to use my abilities and skills occur simply from being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

PLEASE ENSURE YOU ARE MARKING ANSWERS FOR THE CORRECT QUESTION NUMBER ON THE ANSWER SHEET.

134. Does your work environment offer you the chance to be important in the eyes of others?

- a. Yes
- b. No

If "No", please skip to question 137.

135. The chance to be important in the eyes of others occurs when I am performing my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

136. The chance to be important in the eyes of others occurs from simply being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

137. Organizational policies and procedures are applied to me when I am performing my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

138. Organizational policies and procedures are applied to me simply from being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

139. Does your work environment provide you opportunities to personally interact with your supervisor?

- a. Yes
b. No

If "No", please skip to question 142.

140. Opportunities to personally interact with my supervisor occur when I am performing my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

141. Opportunities to personally interact with my supervisor occur simply from being a member of the organization.

A	B	C	D	F
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

142. My future job security is associated with my performance of duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

143. My future job security is associated with simply being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

144. My pay is associated with my performance of duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

145. My pay is associated with simply being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

146. I am subject to the physical conditions of the work situation (heating, lighting, ventilation, etc.) when I am performing my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

147. I am subject to the physical conditions of the work situation (heating, lighting, ventilation, etc.) simply from being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

148. Does your work environment provide you opportunities for advancement?

- a. Yes
- b. No

If "No", please skip to question 151.

149. Opportunities for advancement are associated with my performance of my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

150. Opportunities for advancement are associated with being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

151. Does your work environment provide you opportunities to see your supervisor solve problems?

- a. Yes
- b. No

If "No", please skip to question 154.

152. Opportunities to see my supervisor solving problems occur when I am performing my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

153. Opportunities to see my supervisor solving problems occur simply from being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

PLEASE ENSURE YOU ARE MARKING ANSWERS FOR THE CORRECT QUESTION NUMBER ON THE ANSWER SHEET.

154. Does your work environment provide you opportunities to interact with your co-workers?

- a. Yes
- b. No

If "No", please skip to question 157.

155. Opportunities to interact with co-workers occur when I am performing my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

156. Opportunities to interact with co-workers occur simply from being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

157. Does your work environment offer you opportunities to make and be responsible for your own decisions?

- a. Yes
- b. No

If "No", please skip to question 160.

158. Opportunities to make and be responsible for my own decisions occur when I am performing my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

159. Opportunities to make and be responsible for my own decisions occur simply from being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

160. Does your work environment provide you opportunities to be recognized?

- a. Yes
- b. No

If "No", skip to question 161.

161. Opportunities to be recognized occur when I am performing my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

162. Opportunities to be recognized occur simply from being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

163. Does your work environment provide you a feeling of accomplishment?

- a. Yes
- b. No

If "No", please skip to question 166.

164. Opportunities to receive a feeling of accomplishment occur when I am performing my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

165. Opportunities to receive a feeling of accomplishment occur simply from being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

166. Does your work environment provide you opportunities to be active much of the time?

- a. Yes
- b. No

If "No", you have completed this section. Please begin Section IV.

167. Opportunities to be active much of the time occur when I am performing my duties.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

168. Opportunities to be active much of the time occur simply from being a member of the organization.

A	B	C	D	E
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

SECTION IV

169. Which one of the following shows how much of the time you feel satisfied with your job?
- a. Never.
 - b. Seldom.
 - c. Occasionally.
 - d. About half of the time.
 - e. A good deal of the time.
 - f. Most of the time.
 - g. All the time.
170. Choose the one of the following statements which best tells how well you like your job.
- a. I hate it.
 - b. I dislike it.
 - c. I don't like it.
 - d. I am indifferent to it.
 - e. I like it.
 - f. I am enthusiastic about it.
 - g. I love it.
171. Which one of the following best tells how you feel about changing your job?
- a. I would quit this job at once if I could.
 - b. I would take almost any other job in which I could earn as much as I am earning now.
 - c. I would like to change both my job and my occupation.
 - d. I would like to exchange my present job for another one.
 - e. I am not eager to change my job, but I would do so if I could get a better job.
 - f. I cannot think of any jobs for which I would exchange.
 - g. I would not exchange my job for any other.
172. Which one of the following shows how you think you compare with other people?
- a. No one dislikes their job more than I dislike mine.
 - b. I dislike my job much more than most people dislike theirs.
 - c. I dislike my job more than most people dislike theirs.
 - d. I like my job about as well as most people like theirs.
 - e. I like my job better than most people like theirs.
 - f. I like my job much better than most people like theirs.
 - g. No one likes their job better than I like mine.

SECTION V

173. Age:

- | | | | | |
|----------|----------|----------|----------|----------|
| a. 21-22 | c. 25-26 | e. 29-30 | g. 33-34 | i. 37-38 |
| b. 23-24 | d. 27-28 | f. 31-32 | h. 35-36 | j. 39-40 |

174. Sex:

- a. Male
- b. Female

175. Marital Status:

- | | |
|-----------------------|-------------------------------|
| a. Married | c. Divorced and not Remarried |
| b. Never been married | d. Legally separated |
| | e. Widow/widower |

176. Rank:

- | | | |
|-------|-------|-------|
| a. 01 | c. 03 | d. 05 |
| b. 02 | d. 04 | e. 06 |

177. Total Years in the Air Force:

- | | | | | |
|------|------|------|----------|----------|
| a. 2 | c. 4 | e. 6 | g. 8-10 | i. 14-16 |
| b. 3 | d. 5 | f. 7 | h. 11-13 | j. 17-19 |

178. Level of job you held immediately prior to attending this school. If you held more than one job at your previous base, relate this question to the position you considered most permanent.

- | | |
|--------------------------|------------------------------|
| a. Squadron | f. Other Joint Command |
| b. Wing | g. Separate Operating Agency |
| c. MAJCOM | h. DOD |
| d. Air Staff | i. Other |
| e. JCS/National Agencies | |

179. Aeronautical Rating:

- a. Pilot: primary flying
- b. Pilot: primary non-flying
- c. Navigator: primary flying
- d. Navigator: primary non-flying
- e. Non-rated

180. What is your highest level of education now?

- a. College degree (BA, BS, or equivalent)
- b. Graduate study but no graduate degree
- c. Master's degree
- d. Doctorate degree (PhD, MD, LLB, EdD, etc.)

181. Is the person who prepares your OER military or civilian?

- a. Military
- b. Civilian

Appendix B
Authorization to Reproduce the Minnesota
Satisfaction Questionnaire



UNIVERSITY OF MINNESOTA
TWIN CITIES

Vocational Psychology Research
Department of Psychology
Elliott Hall
75 East River Road
Minneapolis, Minnesota 55455

April 26, 1979

AFIT/ENS
Attn. Lt. Col. Dunne
Building 640
Area B
Wright-Patterson AFB, OH 45433

Dear Col. Dunne:

You have permission to reproduce six-hundred (600) copies of the Minnesota Satisfaction Questionnaire (1967 long form) as per requested in my earlier conversations with members of your staff. As I indicated at that time, royalty fees are 13¢ per copy, or \$78 for 600, and these are to be paid as per your purchase order # F33600-79-M-4905.

If I may be of further assistance to your project staff in providing information about the MSQ, scoring, etc. I hope that you will not hesitate to contact me. Upon completion of your study, we would appreciate receiving a copy of the project report for our records.

I send you our best wishes for a successful study.

Sincerely,

George A. Henly
George A. Henly,
Administrative Assistant

Appendix C
Authorization to Include the Minnesota Satisfaction
Questionnaire in the Thesis

Appendix D
Sample Demographic Data

Aeronautical Rating
Military Rank
Organization Level
Education Level
Total Years in the Air Force
Age
Marital Status
Sex
Reporting Official

SAMPLE DEMOGRAPHIC DATA

Aeronautical Rating

	<u>Frequency</u>	<u>Percent of Total Population</u>
Pilot (primary flying)	42	15.7
Pilot (primary non-flying)	15	5.6
Navigator (primary flying)	45	16.9
Navigator (primary non-flying)	10	3.7
Non-rated	150	56.9
No Response	5	1.2
Totals	267	100.0

SAMPLE DEMOGRAPHIC DATA

Military Rank

	<u>Frequency</u>	<u>Percent of Total Population</u>
Second Lieutenant	0	0
First Lieutenant	7	2.6
Captain	176	65.9
Major	79	29.6
Lieutenant Colonel	1	.4
Colonel	0	0
No Response	4	1.5
Totals	267	100.0

SAMPLE DEMOGRAPHIC DATA

Level of Job Held Immediately Prior to Attending School

<u>Level</u>	<u>Frequency</u>	<u>Percent of Total Population</u>
Squadron	114	42.7
Wing	67	25.1
MAJCOM	37	13.9
Air Staff	7	2.6
JCS/National Agencies	3	1.1
Other Joint Command	2	.7
Separate Operating Agency	11	4.1
DOD	3	1.1
Other	19	7.2
No Response	4	1.5
Totals	267	100.0

SAMPLE DEMOGRAPHIC DATA

	<u>Education Level</u>	
	<u>Frequency</u>	<u>Percent of Total Population</u>
College Degree	65	24.3
Graduate Study But no Degree	64	24.0
Master's Degree	126	47.2
Doctorate Degree	7	2.6
No Response	5	1.9
Totals	267	100.0

SAMPLE DEMOGRAPHIC DATA

Total Years in the Air Force

<u>Group</u>	<u>Frequency</u>	<u>Percent of Total Population</u>
2	2	.7
3	3	1.1
4	28	10.5
5	33	12.4
6	34	12.7
7	30	11.3
8-10	34	12.7
11-13	61	22.8
14-16	21	7.9
17-19	17	6.4
No Response	4	1.5
Totals	267	100.0

SAMPLE DEMOGRAPHIC DATA

<u>Age</u>		
<u>Groups</u>	<u>Frequency</u>	<u>Percent of Total Population</u>
21-22	0	0
23-24	0	0
25-26	15	5.6
27-28	61	22.8
29-30	47	17.6
31-32	35	13.1
33-34	29	10.9
35-36	48	18.0
37-38	13	4.9
39-40	16	6.0
No Response	3	1.1
Totals	267	100.0

SAMPLE DEMOGRAPHIC DATA

Marital Status

	<u>Frequency</u>	<u>Percent of Total Population</u>
Married	221	82.8
Never been married	32	12.0
Divorced, not remarried	9	3.4
Legally separated	1	.4
Widow/widower	0	0
No Response	4	1.5
Totals	267	100.0

SAMPLE DEMOGRAPHIC DATA

	<u>Sex</u>	
	<u>Frequency</u>	<u>Percent of Total Population</u>
Male	250	93.6
Female	13	4.9
No Response	4	1.5
Totals	267	100.0

SAMPLE DEMOGRAPHIC DATA

Reporting Official

	<u>Frequency</u>	<u>Percent of Total Population</u>
Military	247	92.5
Civilian	13	4.9
No Response	7	2.6
Totals	267	100.0

Appendix E

Statistical Tests of Correlation Coefficients

The difference between Pearson product-moment correlation coefficients for separate populations can be tested by using the Fisher transformation to Z whose standard error is related only to N . With uncorrelated r 's, the standard error of a difference between Fisher's Z 's is computed:

$$\sigma_{dZ} = \frac{1}{N_1 - 3} + \frac{1}{N_2 - 3}$$

The correlation coefficients are transformed to z coefficients using the function:

$$r = (e^{2z} - 1) / (e^{2z} + 1)$$

normally by using a table of r in terms of z .

The z statistic is then computed:

$$Z = \frac{Z_1 - Z_2}{\sigma_{dZ}}$$

(Snedecor and Cochran, 1967:187-188)

When the difference between two correlation coefficients is being tested ($r_{12} - r_{13}$), and the variables themselves (x_2 and x_3) are correlated, Hotelling's t -test is used to take into account the correlation between r_{12} and r_{13} :

$$t_{dr} = (r_{12} - r_{13}) \frac{(N-3)(1+r_{23})}{2(1-r_{23}^2 - r_{12}^2 - r_{13}^2 + 2r_{23}r_{12}r_{13})}$$

with degrees of freedom N-3

(Guilford and Fruchter, 1973:167)

Appendix F

Air Force Occupational Attitude Inventory

Facets upon which satisfaction is measured:

- | | |
|--|--|
| 1. Achievement | 19. Required Social Contact |
| 2. Activity | 20. Responsibility |
| 3. Air Force and Unit Policies and Practices | 21. Physical Security |
| 4. Assignment Locality | 22. Economic Security |
| 5. Authority | 23. Service to Others |
| 6. Co-workers | 24. Social Status |
| 7. Creativity | 25. Sufficiency of Training |
| 8. Importance | 26. Supervision Received-Human Relations |
| 9. Independence | 27. Supervision Received-Technical |
| 10. Interest | 28. Performance Evaluation |
| 11. Knowledge of Results | 29. Job Change |
| 12. Personal Growth and Development | 30. Tools, Equipment and Supplies |
| 13. Job Design | 31. Utilization |
| 14. Optional Social Contact | 32. Value of Experience |
| 15. Pay and Benefits | 33. Variety |
| 16. Physical Work Environment | 34. Work Schedule |
| 17. Promotion Opportunity | 35. Supervisory Duties |
| 18. Recognition | |

The Air Force Occupational Attitude Inventory contains an inventory of 348 statements concerning which measure worker satisfaction with these 35 facets (Tuttle, 1975).